

COLUMBIA HOSPITAL
FOR WOMEN AND LYING-IN ASYLUM
WASHINGTON, D. C.

The MODERN HOSPITAL

Vol. VI *April, 1916* No. 4

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Manufacturing and Biological Chemists

THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to their Medical, Surgical, and Nursing Services

Vol. VI *April, 1916* No. 4

NEW COLUMBIA HOSPITAL FOR WOMEN AND LYING-IN ASYLUM

The New Home of Notable Washington City Institution Embodies Latest Standards of Construction and Equipment—Of Low Cost, Considering High Character of Material—Some Details and Figures of Cost

By MECHLIN & STARR, Architectural Engineers, Washington, D. C.

IN the spring of 1913 it was determined to build a modern fireproof hospital building to replace the present main building of the Columbia Hospital for Women and Lying-In Asylum at Washington, D. C., the construction to be under the direction and supervision of Elliott Woods, superintendent United States capitol building and grounds. In accordance with this conclusion, plans were prepared by Nathan C. Wyeth, architect, the engineering features and mechanical equipment being designed by the authors.

The proposed building was to be devoted entirely to maternity cases and to the treatment of diseases peculiar to women. It was to accommodate approximately 130 patients, as well as administration and service portions, which would be of sufficient capacity to permit future additions of such size as to double the number of patients. The contemplated building was to have two distinct divisions, gynecological and obstetrical, and each service was to provide for both free and pay patients, as well as have separate quarters for white and colored patients. Provision was also to be made for a complete dispensary, but separate from the main service of the hospital. The building was to be heated by its own plant, but electric current was to be purchased.

It was found feasible, by moving a few small wooden structures to the rear, to locate the new building on the center of the lot without interfering with the operation of the present plant, and to face the building to the south, the desirable exposure. The design finally selected shows the main portion of the building a rectangle 176 feet long by 44 feet wide, running east and west, with Y-shaped wings at each end of the front, each wing being 31 by 42 feet. A glance at the elevation will show that the surface of the lot was above the sidewalk level, the terrace ranging from 3 to 10 feet. The building is so located, however, that patients can be received directly at the first floor level on the west, while at the same time a separate dispensary entrance is provided at street level on the east. By providing areaways and gently sloping banks away from them, ample light is obtained in the basement rooms.

The accompanying plans will best describe the arrangement of rooms. In the east wing of the basement is the dispensary department, where are also the hospital pharmacy and engineer's quarters. In the center of the basement are the boiler and machinery rooms, main switchboard, and laundry, while at the west are servants' rooms, records, patients' clothing, and autopsy and disinfecting rooms. Separate entrance is provided near the service elevator for tradesmen and employees.

In general, the east wing of the building is devoted to obstetrical service and the west to gynecological. The first floor is for colored free patients, the second for white free, while the third is for private patients. The fourth floor contains the operating and delivery suites, and the fifth the kitchens and dining rooms. With separate elevators and stairways at each end of the building, this arrangement gives the desired relation of departments.

The wards are of 8-, 4-, and 2-bed capacity—that is, comparatively small rather than large. The main 8-bed wards are, however, located in pairs in

the form of a Y, thus insuring a maximum amount of sunlight, with a central location for the attending nurse. Each wing is provided with a quiet or isolation room for extreme cases, as well as a 2- or 4-bed ward, and the necessary utility, toilet, and linen rooms and serving pantry. A room for examinations and cystoscopic work is also provided on each ward floor. On the obstetrical side, on each of the first, second, and third floors, is a large nursery and a baby's bath.

The administration rooms, consisting of offices, information booth, and reception, consultation, board of directors', and medical staff's rooms, are centrally located near the front entrance. The wings of the second floor are practically a duplicate of the first floor. In the center are the resident staff and x-ray suites. On the private room floor are the office, living quarters, and supply room of the superintendent of nurses, and also a retiring room for special nurses.

The fourth floor is the operating floor of the hospital, being divided into the maternity and surgical services. The former consists of three delivery rooms, separated by sterilizing room and obstetricians' washup. There are also connected with this service a 4-bed ward for first stages of labor, an obstetricians' waiting room, and nurses' washup.



Fig. 1. Columbia Hospital for Women and Lying-in Asylum. General view. South elevation.

The surgical portion of this floor consists of a comparatively large operating room and a smaller one, with a sterilizing room between the two. Directly across the corridor is the anesthetizing room, with the nurses' washup on one side, and head operating nurse's office and supply room, and surgeons' washup and waiting rooms on the other. Of special interest in connection with the surgical suite are two 4-bed and one single-bed recovery rooms, which are separated from each other and the nurse's station by glass partitions.

The fifth floor is given up to the kitchens and dining rooms. The main kitchen serves all dining rooms on the same floor and all pantries on lower floors by means of electric dumbwaiters, except the third floor private room pantry, which is served by dumbwaiters from the special diet kitchen. On the roof is the air washing and fan room and the roof garden.

The construction of the building is fireproof, being of steel frame, with terra cotta floors and partitions and brick walls. Besides elevators at each end, there are separate fireproof stairways. The exterior is of tapestry brick, with limestone trimmings. The architectural features of the exterior are an outgrowth of the plan rather than any attempt at ornamental treatment. The elevation is simple in design and interesting in detail, the brick being a golden color, with the plain surfaces broken by patternwork. An added touch of color is given by polychrome terra cotta inserts over the fifth floor windows, while the warm brown-colored roof tile and the Italian treatment of the roof garden as a loggia add much to the interest of the elevation.

The interior trim of the building is wood in general, chestnut where finished natural and birch where painted, but flush metal trim is used in wards, utility rooms, operating and delivery suites, and stairways. The plaster walls in general are painted in a warm gray-green color, the entire operating floor and the toilet and utility rooms throughout being painted white enamel over cotton. The floors of all wards and private rooms are of heavy battleship linoleum, while the operating, delivery, utility, and toilet rooms are tile, and the corridors are terrazzo. With linoleum floor the coved bases are of Keene cement, with tile floor they are of tile, and with terrazzo floor they are homogeneous with the floor, but everywhere the bases are coved and flush with both the finished plaster and floor. In general, sharp angles and dirt ledges are avoided as much as possible in the detail of the interior finish.

The building is heated by a one-pipe up-feed low-pressure steam system, with air removal. Two 137-horse-power all-steel water tube boilers furnish steam for the building, being run at seventy pounds pressure for sterilizers, reduced to twenty pounds for the laundry and kitchen and five pounds for heating.

In general, the radiators are exposed, of plain pattern, with wide spaces between sections, thus increasing not only the efficiency of the radiators, but the facility of cleaning. Radiators are hand controlled, except in rooms where forced ventilation is provided, and there they are thermostatically controlled. In the main operating room, however, the method of hot panel heating is em-

ployed, radiators being placed behind certain panels of the marble wainscoting, thereby making the marble the heat medium. By this method the difficulty of keeping exposed radiators clean is obviated. This source of heat is designed to maintain a temperature in the room of 75 degrees and is under thermostatic control, the thermostat being in the operating room. In order to maintain an operating temperature of 85 degrees, ventilating air is introduced

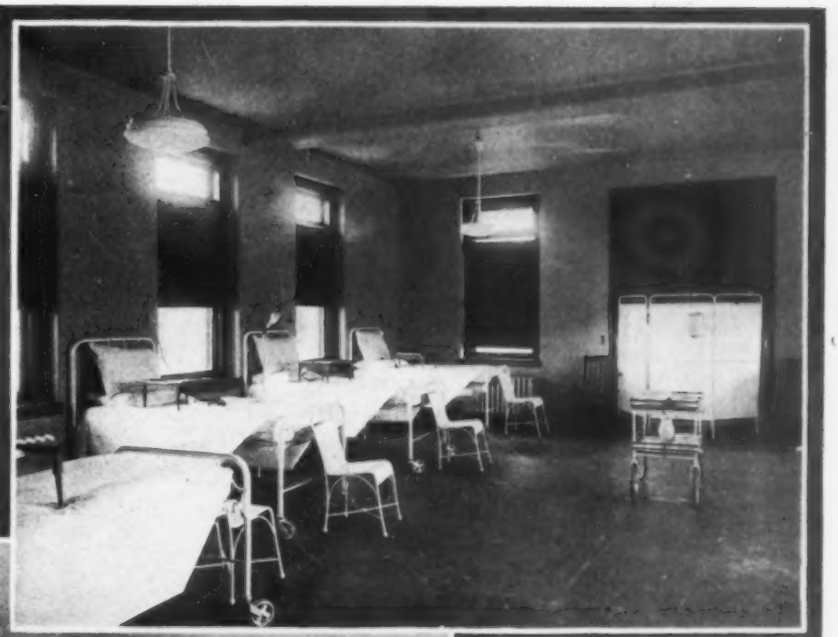


Fig. 2.

in the rooms supplied. A considerable range of relative humidity is obtainable with this apparatus, but the author's investigation would seem to indicate that a relatively high percentage of moisture in operating and anesthetic rooms is desirable. The supply and exhaust fans and air washer

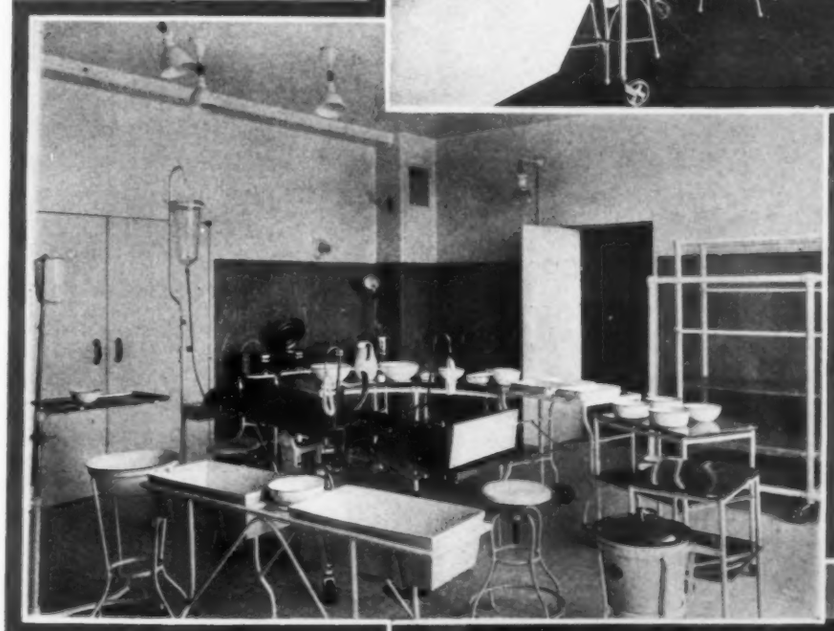


Fig. 3.

into the room at a temperature of 90 to 95 degrees. The vitiated air of the room is, in turn, exhausted by fan. The fresh air for the operating, anesthetizing and delivery rooms is taken in at the northwest corner of the roof and forced by a multiblade fan through tempering coils, washer, and reheater located in the pent-house on the roof. This apparatus is under complete thermostatic control, so designed as to maintain a high percentage of moisture

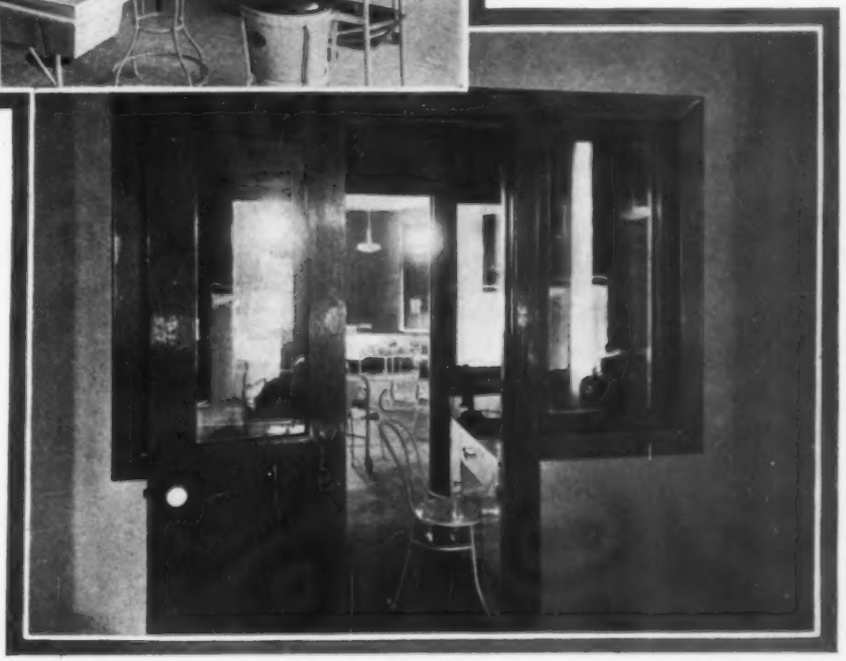


Fig. 4.

Columbia Hospital for Women and Lying-in Asylum. Fig. 2, section of 8-bed ward, showing typical ward equipment. Fig. 3, main operating room; note ceiling lights and marble wainscoting on the right used as hot panels, and also flush metal doors and trim. Fig. 4, nurses' office between 8-bed wards, showing how nurse can see into both wards.



Fig. 5

are started and stopped by remote control push-button switches located in the head operating nurse's office.

Fans exhaust the air from all toilet and utility rooms and kitchens, while wards are cross ventilated through transoms. Every room and corridor in the building has outside windows. The autopsy room is ventilated downward through the pedestal of the autopsy table and exhausted through a duct by a fan into the stack.

The water supply for the building is taken from either the high- or low-pressure city distribution system. The low-pressure system is boosted by a centrifugal pump, with automatic starter and pressure regulator, intended for use only in case of a breakdown of the high-pressure service. The hot water supply is obtained from a heater located in the boiler room, heated by live steam under thermostatic control, which thermostat maintains a temperature of 180 degrees. There is also connected to this heater an incinerator, by which means any heat generated by the destruction of waste is utilized in heating the water.

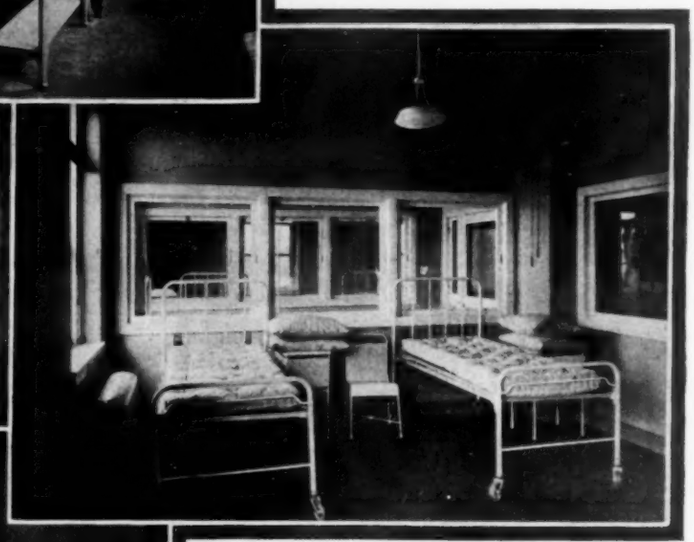


Fig. 6.

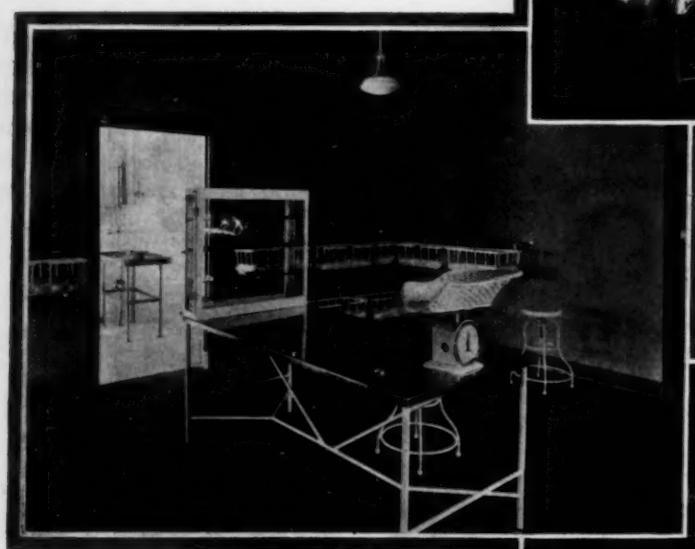


Fig. 7.

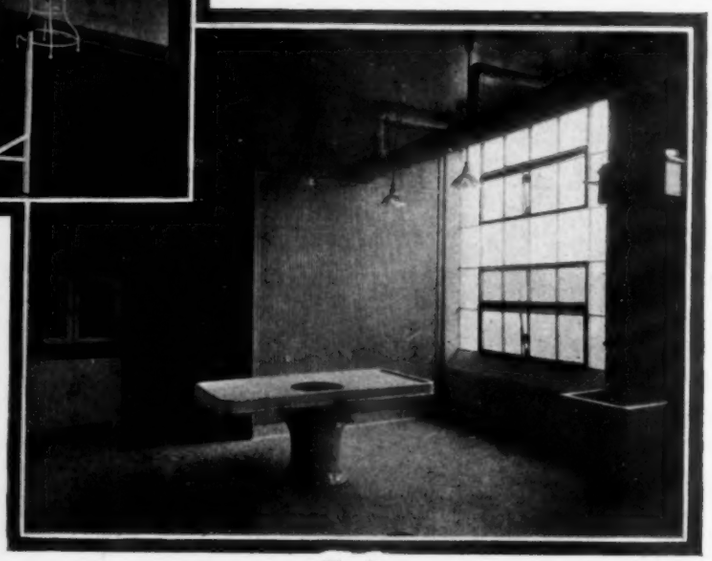


Fig. 8.

Columbia Hospital for Women and Lying-in Asylum. Fig. 5, main kitchen; note convenient grouping of kitchen accessories. Fig. 6, recovery rooms off operating rooms; note glass partitions. Fig. 7, typical nursery; note special babies' bath in adjoining bath room. Fig. 8, autopsy room; note distribution of light fixtures; room is ventilated downward through table pedestal.

The hot water distribution system is what is known as the down-feed circulating, the main supply being carried at once to the roof space, where it is distributed, the system being so designed that hot water can be obtained from any fixture in the building practically instantaneously.

The entire plumbing system was designed with a view to permanency and simplicity, all concealed piping being wrought-iron and exposed piping nickel-plated brass, there being no lead pipe or connections whatever. In the selection and design of the fixtures and brasswork, most of which was specially designed for this building, particular attention was given to the ease with which the fixtures could be kept clean and their durability. The exterior of all brasswork was made particularly smooth, eliminating as far as possible all sharp edges and corners where dirt might collect. A few special features which may be mentioned in this connection are: stop valves were provided for all fixtures, with smooth bonnets similar to those on the faucets; all bath tubs have standing, removable celluloid wastes, which can be easily cleaned, and also prevent the washing back into the tub of any dirt from concealed piping, which is possible with combination waste and overflow; in the surgeons' lavatory the waste is cast integral with the lavatory, and is large enough to be easily wiped out by removing the perforated china cover; all fixtures are equipped with a special

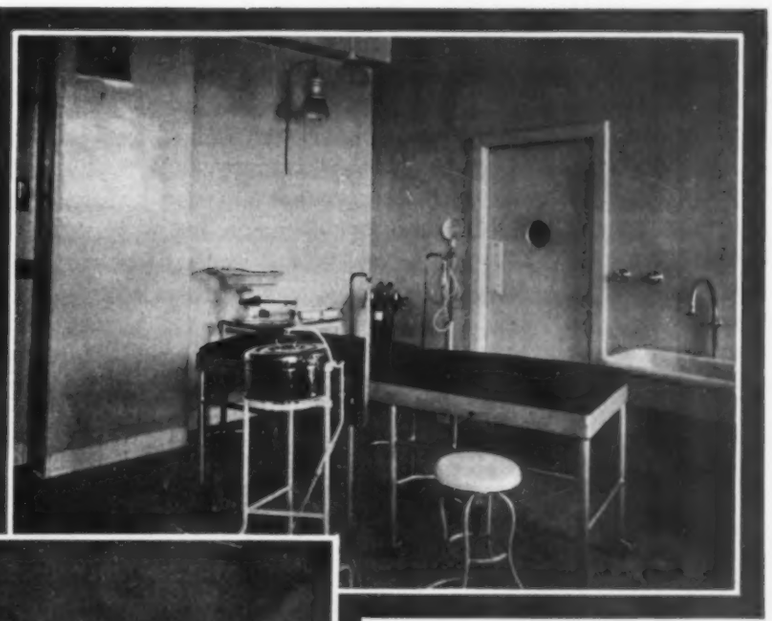


Fig. 9.

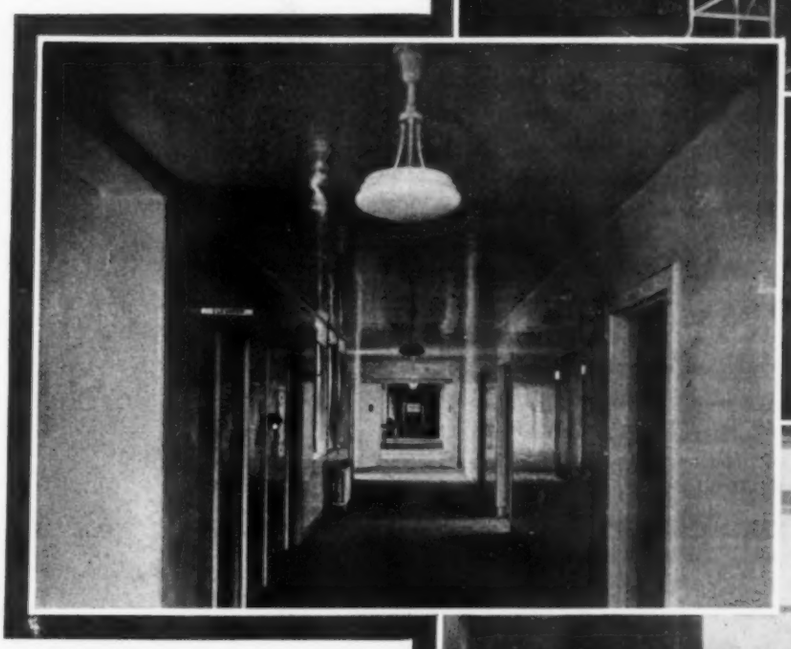


Fig. 10.

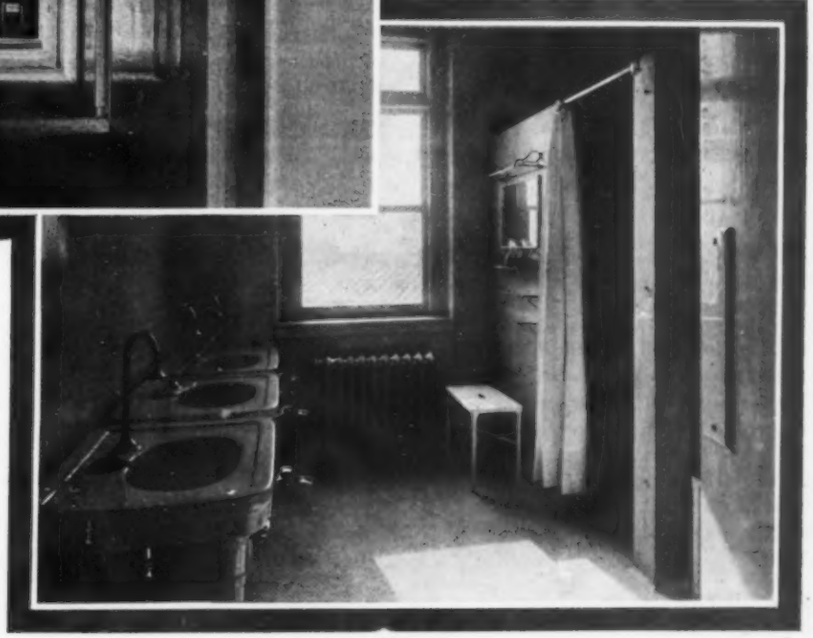


Fig. 11.

Columbia Hospital for Women and Lying-in Asylum. Fig. 9, typical delivery room. Fig. 10, corridor on operating floor, looking toward recovery room from obstetrical end. Fig. 11, surgeons' washup room.

nonsyphoning trap so designed that removing the cover exposes the entire trap for cleaning; operating and delivery rooms are provided with flushing floor drains, supplied with both hot and cold water and polished brass air-tight covers with ground joints.

The electric service is obtained from the public service corporation, the current being three-wire, 220–110-volt alternating, the 110-volt being used for lighting and the 220-volt for all motors. In general, the lighting circuits are distributed from two panels on each floor, while all fixtures are controlled by local wall switches, except a sufficient number in the halls and corridors for all-night service, which are directly controlled at the main basement switchboard. The light fixtures are of the inverted bowl type, the principal illumination being indirect, while the translucent glass bowl is of pleasing appearance. The lighting was so designed that the following average intensities three feet above the floor are obtained:

Wards	.98	foot-candles (general).
Wards	.30	foot-candles (night).
Corridors	.53	foot-candles.
Utility rooms..	8.25	foot-candles.
Private rooms..	1.7	foot-candles, on bureau.
Private rooms..	.14	foot-candles, on pillow.
Private baths...	5.	foot-candles.
Operating table.	22.5	foot-candles, field unobstructed.
Operating table.	17.4	foot-candles, field obstructed by [operator's head.
Delivery room..	21.7	foot-candles.

At the head of every bed is a wall receptacle for either small night lamp or high intensity examination standard. All private rooms are supplied with a special reading lamp clamped to the head of the bed. In the operating rooms eight single lamp fixtures with opaque reflectors are located on the ceiling in the form of an ellipse 7 by 12 feet around the operating table. The axis of each fixture is inclined toward the center of the operating table, thus giving a high illumination of the field of operation regardless of the position of the operator, and eliminating the objectionable heating and possible infection from dirt falling from any fixture over the patient.

Large emergency gas lamps are located in each operating and delivery room, and small jets in all corridors, thus providing sufficient illumination to carry on the work of the hospital during a temporary breakdown of the electric service.

The 220-volt power service is distributed from the main switchboard to a complete laundry, with individual motor drive, three elevators (two patient and one service), six automatic push-button dumbwaiters, ammonia compressor and brine circulating pump of refrigerating plant, fan and kitchen motors, and transformers for low voltage nurses' call system.

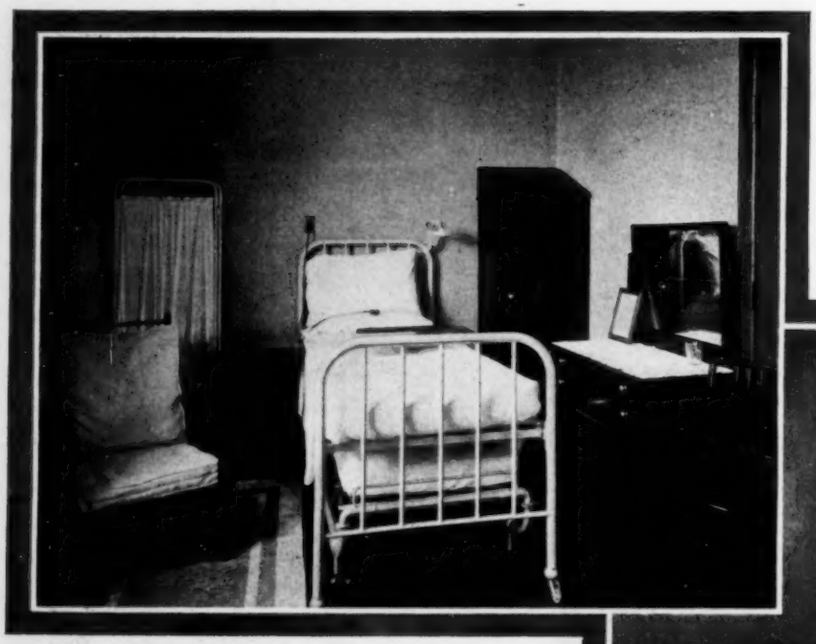


Fig. 12.

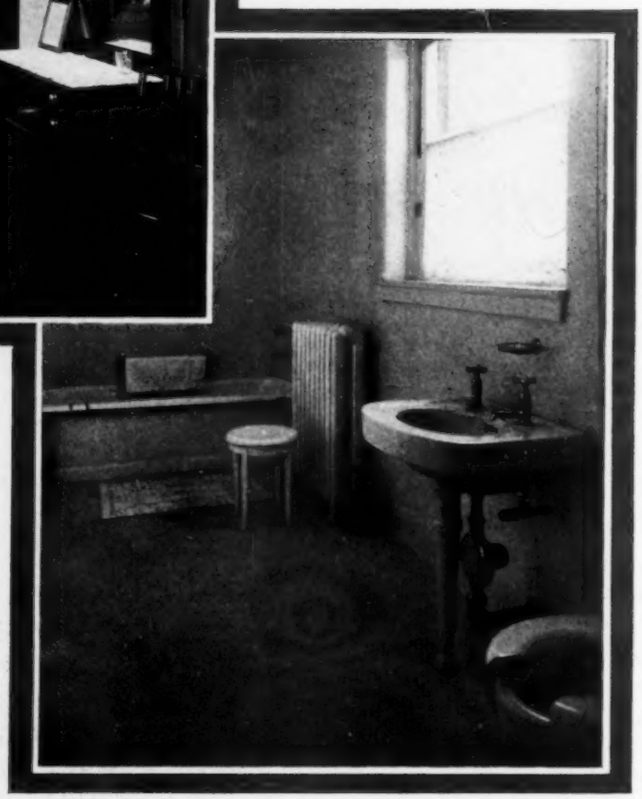


Fig. 13.

Columbia Hospital for Women and Lying-in Asylum. Fig. 12, typical furniture for private room. Fig. 13, typical private room bath; note specially designed brasswork.

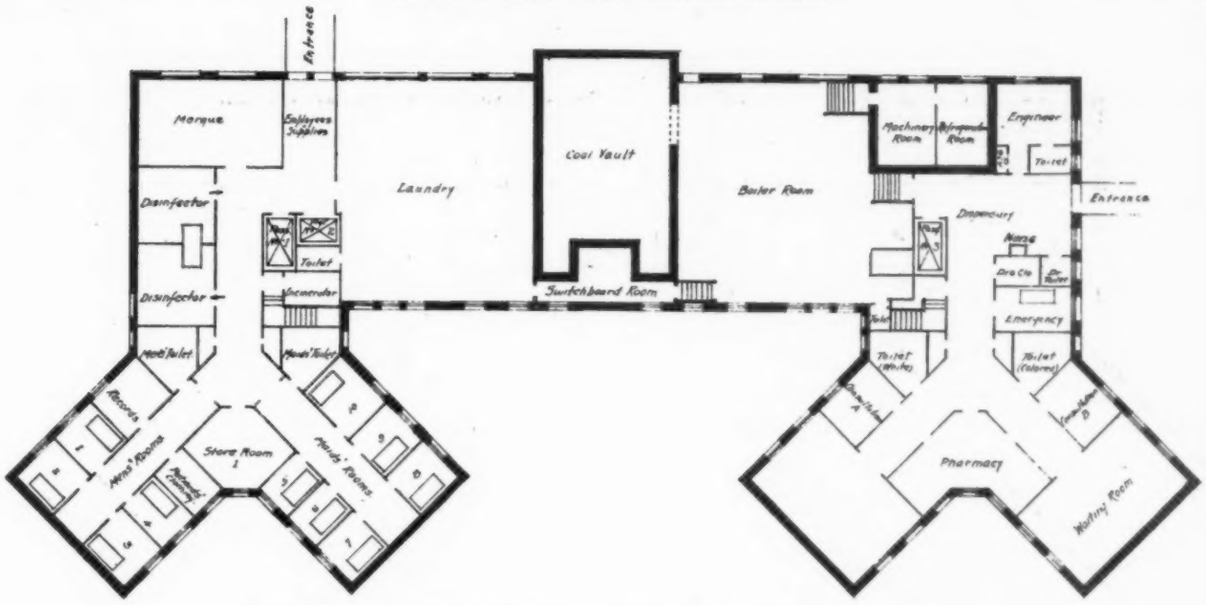


Fig. 14. Columbia Hospital for Women and Lying-in Asylum. Basement floor plan.

The nurses' call system is supplied with 10-volt current from transformers in the basement, and consists in the wards of a flush wall receptacle, with pear push-button extension, a light over the ward door, and a flush metal flash light annunciator in the attending nurse's office, while in the private rooms is a similar installation, with the exception that there is no light by the patient's bed. This system operates in the following manner: when the patient presses the button of the pear push, lamps light at the head of the bed, over the door or ward, and back of the designating room letter or number in the annunciator, and at the same time a buzzer sounds in the annunciator, which buzzer operates only while the patient pushes the button, though the lights remain on until the nurse resets the call at the patient's bed. Some of the advantages of the system are that only ten volts are carried to the patient's bed, all contacts being made mechanically and not through relays, and that the buzzer can be cut in or out as desired by a switch in the annunciator box.

For the sake of economy it was deemed advisable to have two separate telephone systems in the building, both with switchboard exchange—one to take care of the intercommunicating hospital requirements and the other for outside service. A hospital phone is located in all administration and service rooms, as well as in each nurse's station, and an outside telephone is located in each of the more important administration rooms and certain private patients' rooms.

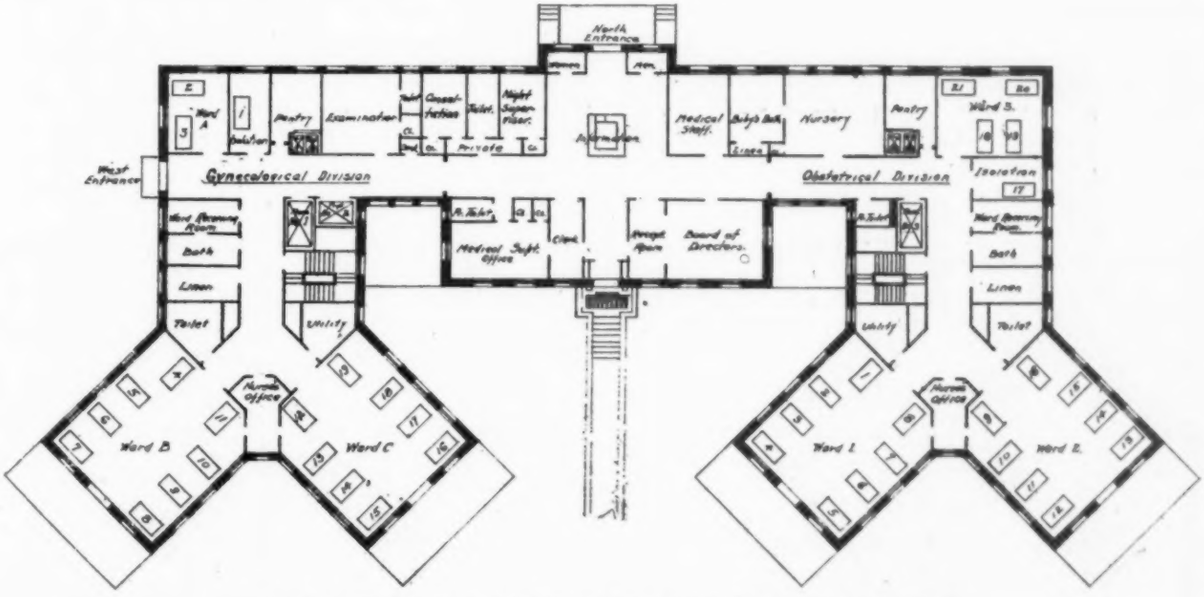


Fig. 15. Columbia Hospital for Women and Lying-in Asylum. First floor plan.

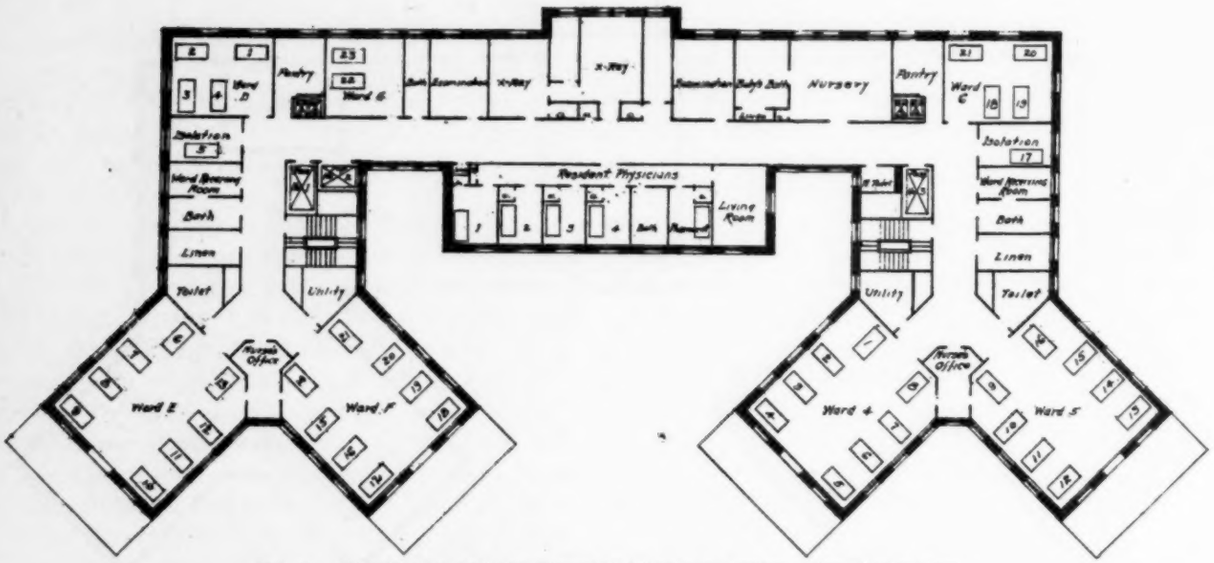


Fig. 16. Columbia Hospital for Women and Lying-in Asylum. Second floor plan.

The steam sterilizing equipment of the hospital is unusually complete. The sterilizing set for the operating rooms consists of large size water, dressing, utensil, and instrument sterilizers, which same equipment is duplicated for the delivery suite. The utility rooms throughout the entire building have a utensil sterilizer sufficiently large to accommodate bed-pans, as well as small water and instrument sterilizers and blanket and bed-pan warmers. Each examination room has a small electric instrument sterilizer. The disinfecting apparatus, located in the basement, is of the vacuum formaldehyde type, cylindrical in shape, and large enough to accommodate six mattresses at one time.

In order to take care of the garbage and waste of the hospital, there were installed three incinerators—one in the kitchen and one in each wing of the basement.

We have described the more important architectural and engineering features of the new Columbia Hospital, but, since the hospital was also completely furnished, and under the same direction as the construction, with all furniture, instruments, and miscellaneous equipment ready for occupancy, a few words on this equipment may be of interest. The wood furniture was specially designed for its particular use, and was uniformly of the best possible construction, being mahogany in the board room, natural oak in the office, fumed mission oak, with Spanish leather upholstery, in medical staff and living rooms, and gum walnut finish in private rooms. With the exception of the private rooms, all rooms occupied by patients are finished entirely in aseptic metal furniture, some of the special features of which might be mentioned: all joints are electrically welded, giving specially smooth connections; all beds are equipped with



Fig. 17. Columbia Hospital for Women and Lying-in Asylum. Third floor plan.

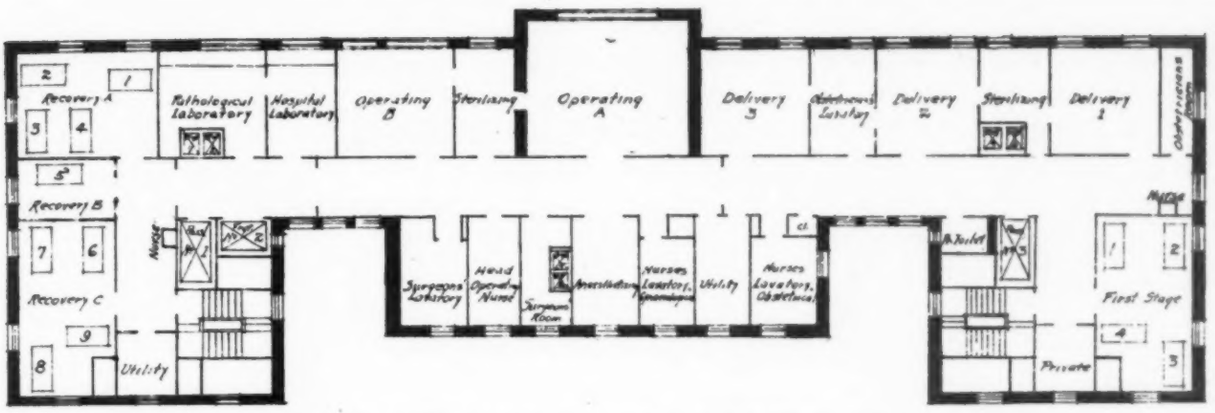


Fig. 18. Columbia Hospital for Women and Lying-in Asylum. Fourth floor plan.

Fowler frame springs instead of adjustable back rests, and have 5-inch rubber-tired wheels, with 10-inch extension stems for adjusting the height of the beds, only the foot wheels being swiveled, the head wheels thus acting as bumpers against the wall; and all table tops and shelves (except on bedside tables), counter shelves of medicine and supply cabinets, and tops of nurses' desks, are made of 14-gauge polished monel metal on account of its great durability and highly noncorrosive character. All mattresses are filled with pure South American hair, not only because they are more comfortable for the patient, but because this is the only material that can be properly disinfected without injury.

Considerable care was given to the selection of a complete equipment of surgical instruments, operating and examination tables, and obstetrical beds, as well as laboratory and pharmacy apparatus.

Besides the items of equipment previously mentioned, the almost endless amount of miscellaneous equipment necessary in such a building and furnished to this hospital may be best indicated by the following list:

Bath room accessories.
China, glass and silver ware.
Clocks.
Curtains.
Directories.
Enamel ware.
File cases.
Fire extinguishers.
Kitchen equipment and sundries.
Laundry equipment.
Linen and blankets.
Patients' registers.
Refrigerators.
Rubber goods.
Rugs.
Screens.
Shades.
Signs.
Vacuum cleaner.

Possibly the most interesting feature of this hospital is its comparatively low cost in spite of its standard of construction and equipment. The hospital cost 29 cents per cubic foot, including the mechanical equipment noted below, and 39 cents per cubic foot completely furnished ready for occupancy, including all expenses, or $2,180 and $2,950 per bed on similar comparisons. While the cost of hospitals is usually considered per cubic foot or per bed, it is difficult to get a strictly fair comparison on account of the different methods of cubing the building and of the variance in number of items of equipment included. In cubing this building the height was taken from the bottom of the footings to the high point of the roof, and porches and loggia were included at one-fourth their cube. The mechanical equipment included in the cost of 29 cents a cubic foot comprised all fixed items, such as heating and ventilating and refrigeration plants, refrigerators, electric conduits, wiring and fixtures, plumbing, vacuum cleaner, elevators and dumbwaiters, sterilizers, laundry, and kitchen equipment.

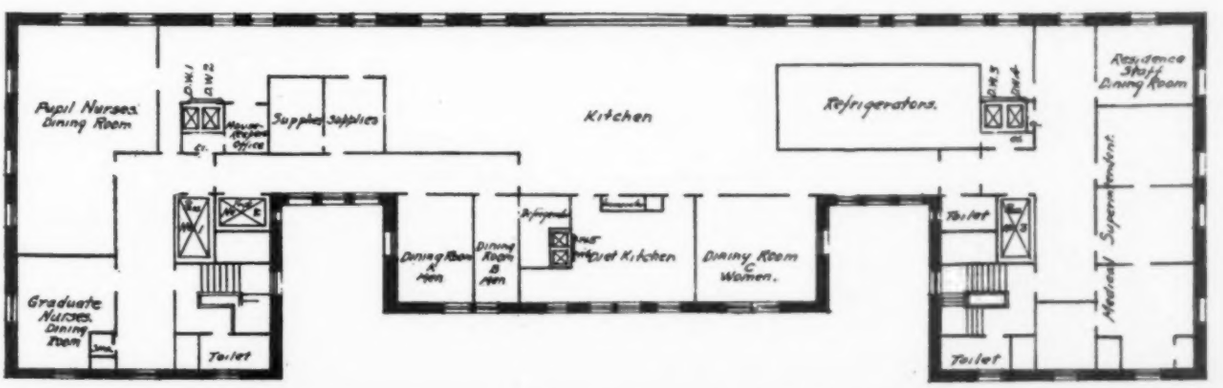


Fig. 19. Columbia Hospital for Women and Lying-in Asylum. Fifth floor plan.

ANALYSES AND EVALUATION OF PROPRIETARY INFANT FOODS[1]

Comparative Examinations Over Several Years Show Increase in Protein and Decrease in Starch—The Nutriment They Supply to the Infant When Prepared as Directed

By JOHN PHILLIPS STREET, Chemist, Connecticut Experiment Station, New Haven, Conn.

IN 1908 the writer examined a large number of the special foods for infants sold in this country. A reexamination of these foods has just been completed, designed to show, first, how uniform in composition these foods are as determined by analyses at widely separated intervals, and, second, to determine the changes which the foods as sold undergo in the process of preparation directed by the manufacturer. It is obvious that it is not fair to a manufacturer to condemn his food because ordinary methods of analysis show large percentages of unaltered starch when, if his directions for preparation are carried out, most, if not all, of the starch may be converted into soluble forms.

This new examination has shown that, with a very few exceptions, the differences in composition of the foods as sold in 1908 and 1915 are not large, and in general the percentage of protein has increased and that of starch decreased.

The preparations examined may be divided roughly into five classes: first, those prepared from cow's milk, with various additions or alterations, and ready for use simply with the addition of water; second, farinaceous foods, in which the starch has been partly or wholly converted into malt sugar or dextrin, and which are fed with cow's milk; third, cereal preparations, to which an enzyme preparation is added at the time of preparation for feeding; fourth, barley products for the preparation of barley water as an adjunct in infant feeding; and, fifth, miscellaneous products.

The first group, or those prepared from cow's milk with various amendments, includes:

A. D. S. Malted Milk.
Allenburys' Milk Food No. 1.
Allenburys' Milk Food No. 2.
Borden's Malted Milk.
Carnrick's Lacto-Preparata.
Carnrick's Soluble Food.
Cereal Milk.
Horlick's Malted Milk.
Lactated Food.
Meadow Malted Milk.
Nestlé's Food.

In these eleven brands the protein ranges from 8.8 to 15.4 percent and the fat from 0.6 to 14.2 percent, showing the wide difference of opinion among manufacturers as to the proper food for infants. While seven of the brands contain no starch, Cereal Milk contains a small amount, and Nestlé's Food, Carnrick's Soluble Food, and Lactated Food contain 20, 26 and 48 percent of starch respectively. These last three foods likewise show low water-solubilities—namely, 62, 58 and 32 percent—while in the other eight brands of this group from 74 to 84 percent of water-soluble material is present. While the ash in all the brands was almost completely soluble in water, the protein showed a wide range of water-solubility, the extremes being Lactated Food, with 11 percent, and Allenburys' Milk Food No. 2, with 74 percent. The two Allenburys preparations contained much more fat than any of the others.

[1]This is one of a series on Foods and Food Preparation; February issue, "Nuts and Nut Preparations;" next month, "Coffee and Coffee Substitutes.

TABLE 1. COMPOSITION OF INFANT FOODS

Brand.	Water	Fat	Fiber	Ash	Protein (N x 6.25)	Nitrogen-free extract	Starch	Reducing sugars, as dextrose		Water-soluble			
								Direct	After inversion	Total	Protein	Ash	Carbohydrates
A. D. S. Malted Milk	5.93	6.75	0.13	3.08	14.06	70.05	None	30.64	70.12	77.82	7.81	3.04	66.97
Allenburys' Milk Food No. 1	4.98	13.80	0.00	3.98	9.88	67.36	None	35.56	61.52	73.92	7.19	3.93	62.80
Allenburys' Milk Food No. 2	4.20	14.20	0.08	3.70	9.75	68.07	None	35.80	64.84	77.32	7.25	3.67	66.40
Allenburys' Malted Food No. 3	8.58	0.78	0.15	1.18	9.38	79.93	60.92	6.92	14.56	20.96	2.38	1.04	17.54
Benger's Food	10.55	0.83	0.15	1.00	10.75	76.72	57.66	2.68	8.24	19.16	8.50	0.97	9.69
Borden's Malted Milk, Eagle Brand	5.18	7.15	0.05	3.45	15.38	68.79	None	29.64	67.80	77.32	8.88	3.14	65.30
Brooks' Baby Barley	9.88	1.03	0.28	0.88	8.69	79.24	68.51	0.72	3.48	7.36	1.50	0.74	5.12
Carnrick's Lacto-Preparata	2.90	1.60	0.03	3.38	13.63	78.46	None	49.12	74.80	84.44	6.63	3.01	74.80
Carnrick's Soluble Food	1.87	1.05	0.45	1.30	12.44	82.89	25.99	19.24	49.52	57.58	2.94	1.19	53.45
Wells & Richardson's Cereal Milk	5.10	3.55	0.08	2.38	11.00	77.89	1.74	36.72	73.00	78.72	4.56	2.21	71.95
Cereo Gruel Flour, Barley	9.75	2.03	0.43	1.48	14.88	71.43	58.39	0.76	5.20	10.24	1.56	1.13	7.55
Cereo Gruel Flour, Oat	8.78	6.40	0.88	2.53	16.88	64.53	56.31	0.12	2.36	5.24	0.69	0.77	3.78
Cereo Gruel Flour, Wheat	8.78	1.30	0.10	0.48	12.81	76.53	67.61	0.84	3.32	7.68	2.56	0.24	4.88
Eskay's Albumenized Food	3.08	1.28	0.33	1.58	7.75	85.98	31.95	31.60	48.88	51.12	0.69	1.24	49.19
Horlick's Malted Milk	2.03	8.10	0.15	4.00	15.00	70.72	None	30.28	68.88	77.56	7.88	3.64	66.04
Imperial Granum Food	6.23	0.50	0.18	0.50	13.88	78.71	72.79	0.40	2.12	3.36	0.94	0.42	2.00
Justfood	6.95	0.03	0.10	0.30	0.63	91.99	3.32	14.80	95.84	91.24	0.63	0.31	90.30
Lacnut	3.75	31.30	1.15	2.10	22.19	39.51	2.31	12.04	37.08	41.34	3.88	1.38	36.08
Well's & Richardson's Lactated Food	8.53	0.55	0.10	0.88	8.81	81.13	47.93	16.92	28.52	31.54	1.00	0.67	29.87
Meadow Brand Malted Milk	3.20	5.20	0.30	3.28	14.50	73.52	None	31.52	71.04	79.84	8.50	3.25	68.09
Mellazea	10.48	2.20	0.40	0.60	5.75	80.57	74.36	0.84	1.60	2.50	0.44	0.44	1.62
Mellin's Food	2.98	1.80	0.20	4.45	11.31	79.26	None	34.24	77.64	84.50	5.13	4.10	75.27
Nestlé's Food	3.65	5.70	0.18	1.45	11.94	77.08	20.25	13.88	50.24	61.60	4.88	1.24	55.48
Peptogenic Milk Powder	2.50	0.03	0.10	1.43	0.19	95.75	None	64.48	90.32	92.42	0.19	1.34	90.89
Ridge's Food	9.43	0.33	0.18	0.75	10.31	79.00	70.93	0.80	2.96	5.04	1.44	0.48	3.12
Robinson's Patent Barley	10.58	1.40	0.23	0.85	6.75	80.19	70.20	0.92	2.92	5.70	0.81	0.58	4.31
Wampole's Milk Food	1.65	5.25	0.15	4.83	9.19	78.93	None	28.76	66.84	76.56	7.50	3.92	65.14

The second group, farinaceous foods in which the starch had been rendered more or less soluble, includes:

Allenburys' Malted Food No. 3.	Justfood.
Benger's Food.	Mellin's Food.
Imperial Granum.	Ridge's Food.

In four of these foods a malting process has been employed, in Benger's Food a pancreatic enzyme is claimed to be present, while in Ridge's Food dependence for the starch conversion has apparently been placed on simple baking. A characteristic of these foods is their low content of fat, Mellin's Food, with 1.8 percent, being the only one containing more than 0.8 percent. (It must be remembered, however, that all of these are directed to be used in conjunction with milk.) These are essentially carbohydrate foods, the protein in five brands ranging from 9.4 to 13.9 percent, while in Justfood only 0.63 percent of protein is present, this food consisting almost entirely of soluble carbohydrates and water. Mellin's Food contains no starch and Justfood about 3 percent, while the other four brands contain from 58 to 73 percent. The extent to which this starch is converted into soluble forms at the time of the food's preparation will be discussed later. In the foods, as analyzed, the starch conversion has been extremely small, except in Justfood and Mellin's Food, in which 90 and 75 percent respectively of the carbohydrates are soluble in water. The soluble carbohydrates in the other brands range from 3 percent in Imperial Granum to 17.5 percent in Allenbury's Malted Food No. 3. The solubility of the protein in Benger's Food is 80 percent and in Mellin's Food, 45 percent, while in the others only from 6 to 26 percent is soluble in water. Ridge's Food claims the presence of milk sugar, but, as only 3 percent of soluble carbohydrate is present, no more than is found in ordinary cereal flours, the amount of this ingredient cannot be large.

The third group includes four foods of the Cereo Company, in the preparation of which for the child's use an enzyme preparation called Cereo, supplied by the company with the food, is directed to be used. These brands are:

Cereo Gruel Flour, Barley.	Cereo Gruel Flour, Wheat
Cereo Gruel Flour, Oat.	Mellazea.

The following is our analysis of a sample of Cereo itself:

Water and volatile	34.38	Total reducing sugars, as maltose	13.50
Alcohol by volume	4.50	Dextrose	7.80
Solids	65.62	Other nonsugar solids	10.29
Glycerin	37.50	Amylase	present
Protein	3.63		
Ash	0.70		

The four Cereo flours show about the usual composition of flours from the respective grains. They are naturally high in starch and their solubility in water is low. For the effect of Cereo in converting their starch into soluble carbohydrates, see later in this discussion.

The fourth group includes two barley preparations offered as a means of preparing barley water. The two brands are quite similar in composition. Barley water made from Brooks' Baby Barley according to directions we found to have the following composition:

Water	98.40	Carbohydrates	1.42
Protein	0.14	Ash	0.04

The miscellaneous group includes Eskay's Albumenized Food, a preparation made from egg albumen and cereals, and directed to be fed with cow's milk; it is rather low in both protein and fat and contains about 32 percent starch. Lacnut is made from almonds and other nuts, and its composition is claimed to be "nearly identical with that of mother's milk, which it more clearly resembles in its properties than does any other food." Our analysis does not disclose this close identity. This food, however, is by far the richest in protein and fat of any of the foods listed in the table; it also contains but little starch. Peptogenic Milk Powder is chiefly milk sugar and contains no starch. Wampole's Milk Food is made from "malted cereals, beef, and milk, with wheat phosphates." It contains no starch and 65 percent of water-soluble carbohydrates, and exceeds in ash all the other foods given in the table.

COMPOSITION OF FEEDING MIXTURES MADE FROM THESE FOODS AS DIRECTED

The dietitian is not concerned so much with the composition of these foods as the analyst finds them, though that of course is important, as he is with the actual composition of the feeding mixtures made from them when the manufacturer's directions are implicitly followed. Table 2 gives this information, the writer having selected arbitrarily the three-months-old feeding period for purposes of comparison. Allenburys' Malted Food No. 3 is not included, as it is not intended for infants under six months, nor are the two barley preparations and Lacnut, no feeding directions accompanying my sample of the last-named. In preparing this table the following average composition of cow's milk has been assumed, and a typical sample of top milk was analyzed as follows:

	Cow's milk	Top milk
Specific gravity at 60° F	1.0300	1.0300
Water	87.40	82.84
Protein	3.80	4.36
Fat	3.60	8.05
Lactose	4.50	4.05
Ash	0.70	0.70

According to Hutchinson, the average three-months-old infant should consume daily about 800 grams of human milk. Mother's milk at the three-months' period contains on the average 1.0 percent of protein, 2.9 percent of fat, 6.7 percent of carbohydrates, and 0.2 percent of ash, so that a daily feeding of 800 grams would supply to the child:

Protein .....8.0 grams	Carbohydrates..53.6 grams
Fat ..... 23.2 grams	Ash ..... 1.6 grams

TABLE 2. COMPOSITION OF DAY'S FEEDING WHEN FOODS ARE PREPARED ACCORDING TO DIRECTIONS FOR INFANTS 3 MONTHS OLD

BRAND.	Total amounts of mixture fed, ounces	Grams supplied in day's feeding			
		Protein	Fat	Carbohydrates	Ash
A. D. S. Malted Milk	35	17.79	8.54	88.82	3.90
Allenburys' Milk Food No. 1	21	9.81	13.70	66.86	3.95
Allenburys' Milk Food No. 2	21	9.67	14.09	67.63	3.67
Benger's Food	30	18.93	15.74	37.27	3.26
Borden's Malted Milk	35	19.79	9.20	88.57	4.44
Carnrick's Lacto-Preparata	17.5	3.24	0.38	18.64	0.80
Carnrick's Soluble Food	24	8.60	0.73	57.60	0.90
Cereal Milk	32	14.48	4.67	102.61	3.13
Cereo, Barley	40	29.01	40.76	79.53	4.22
Cereo, Oat	40	29.99	42.89	76.39	4.73
Cereo, Wheat	40	28.01	40.40	81.86	3.73
Eskay's Albumenized Food	32	20.77	18.00	45.81	3.86
Horlick's Malted Milk	29.75	17.79	9.60	84.04	4.74
Imperial Granum Food	42	26.52	22.36	45.09	4.44
Justfood	27	21.33	20.03	53.87	3.98
Lactated Food	35	22.13	19.54	39.16	3.94
Meadow Brand Malted Milk	35	19.26	6.91	98.08	4.36
Mellazea	40	24.56	40.84	83.98	3.79
Mellin's Food	28	20.31	16.20	56.63	3.18
Nestlé's Food	32	7.18	3.43	46.43	0.87
Peptogenic Milk Powder	27	13.48	16.56	40.58	2.76
Ridge's Food	34	21.29	17.88	41.44	3.64
Wampole's Milk Food	32	17.07	9.75	146.90	8.97
Mother's Milk, 800 grams	—	8.00	23.20	53.60	1.60

Granting the accuracy of the figures quoted from Hutchinson, table 2 shows very conclusively how little the preparations made from most of these special infant foods resemble mother's milk either in the kind or amount of nutriment supplied. The table shows very strikingly the large excess of protein supplied by most of the feeding mixtures, sixteen of them supplying from two to three times as much protein as human milk. In one brand less than one-half of the proper amount of protein is supplied, one-sixtieth of the fat, one-third of the carbohydrates, and one-half of the ash. It is difficult to see how this food, prepared under the directions given, could supply proper nutriment to the child. As a rule, there is a great deficiency in fat, the foods prepared with water alone supplying only from one-sixtieth to one-third the proper amount. The four Cereo preparations yield a food very rich in fat, due to the use of top milk and not to the food itself. The two Carnrick foods, the malted milks, Cereal Milk, and Nestlé's Food are very deficient in this important ingredient. The carbohydrate content of the feeding mixtures more nearly approximates the amount found in human milk than either the protein or the fat; the kind of carbohydrate present, however, is generally radically different from that in mother's milk. In Cereal Milk, the malted milks, and Wampole's Milk Food the carbohydrates are present in great excess. The ash in the mixtures is generally high, from two to three times the amount supplied by human milk; the two Carnrick foods and Nestlé's Food, however, contain only about half the normal amount.

There is much difference of opinion among physiologists as to the essentials of a proper artificial infant's food, and the writer hesitates at this time to express any decided opinion one way or the other. The chief purpose of this paper is to give accurate analyses of these foods and the preparations made from them, and to submit these analyses for the information and guidance of THE MODERN HOSPITAL readers who may wish to make use of one or the other of these foods in their institutional work.

It seems necessary, however, to call attention to claims made by three of these foods. Carnrick's Lacto-Preparata claims to be "the nearest approach to mother's milk that can ever be produced and remain permanent;" Lacnut claims that its composition is nearly identical with that of mother's milk; and Nestlé's Food claims that it "in its composition shows a close resemblance to mother's milk." The following summary of the analyses of these three preparations shows that, if the manufacturers' claims are correct, human milk in Jersey City, N. J., Battle Creek, Mich., and in Vevey, Switzerland, must be an exceedingly variable product:

	Carnrick's Lacto-Preparata	Lacnut	Nestlé's Food
Fat	1.60	31.30	5.70
Ash	3.38	2.10	1.45
Protein	13.63	22.19	11.94
Carbohydrates	78.46	39.51	77.08
Starch	none	2.31	20.25

EFFECT OF PRESCRIBED METHOD OF PREPARATION ON THE STARCH OF THE FOODS

In the following experiments, of course, those brands containing little or no starch were not included. Twelve of the brands were prepared strictly according to the formulas and directions for infants three months old, except that in the Cereo foods the mixtures were not strained. The amount of food recommended was determined in grams and the volume of liquid (water or milk, or both) estimated in cubic centimeters. Four grams of material were then used for the test, the volume of liquid being made proportional. After preparing the ration, the mixture was centrifuged and soluble matters removed by decantation, this operation being repeated three

times and no other washing made. The residue was then treated with malt extract and starch determined in the usual way. It must be recognized that the residual starch in all cases is cooked starch, possessing therefore some advantages over raw starch from the standpoint of digestibility.

There was no actual digestion or conversion of starch to sugars, except where enzymes were incorporated in the food (Benger's Food), or were mixed with the food at the time of preparation (Cereo foods). The action in the other cases must have been due to that of boiling water on starch, rendering it partly soluble or colloidal. The action of any amylase in the milk must have been insignificant, since the time consumed in preparation was not great in any case, and usually the milk was boiled. The acidity of the milk likewise would probably not cause any considerable conversion of starch in the time employed.

Attention has already been called to the presence of amylase in Cereo. Benger's Food likewise contained amylase, together with an esterase and a protease, all enzymes normal to pancreatic extract, which this food is claimed to contain. The effect of these enzymes in the food is clearly apparent from the following table:

TABLE 3. DEGREE OF STARCH CONVERSION IN PREPARING FOOD MIXTURES

Prepared with water only.	Starch in original	Starch after preparation	Starch converted, percent
Carnrick's Soluble Food	25.99	22.87	12
Nestlé's Food	20.25	16.92	16
Prepared with water and milk.			
Eskay's Albumenized Food	31.95	23.64	26
Imperial Granum	72.79	41.67	43
Ridge's Food	70.93	44.84	37
Benger's Food	57.66	5.71	90
Lactated Food	47.93	40.49	16
Allenburys' Malted Food No. 3	60.92	27.76	54
Prepared with water, milk, and Cereo.			
Cereo Gruel Flour, Oat	56.31	7.20	87
Cereo Gruel Flour, Wheat	67.61	1.18	98
Cereo Gruel Flour, Barley	58.39	12.14	79
Mellazea	74.36	5.15	93

In the four Cereo preparations and Benger's Food from 79 to 98 percent of the starch was converted into soluble carbohydrates. In the other brands the starch conversion was relatively small; in Carnrick's Soluble Food, 12 percent; in Nestlé's Food and in Lactated Food, 16 percent; in Eskay's Albumenized Food, 26 percent; in Ridge's Food, 37 percent; in Imperial Granum, 43 percent; and in Allenburys' Malted Food No. 3, 54 percent. In fairness to this last-named food, it should be said that it is not recommended by the manufacturers for infants under six months.

THE MUNICIPAL TUBERCULOSIS HOSPITAL OF KANSAS CITY

Architectural Details of an Institution Built on the Lines of a Modern General Hospital—Distribution of Costs by Items, and Figured Both in Terms of Cubic Feet and Per Bed Capacity

BY EDGAR P. MADORIE, ARCHITECT, KANSAS CITY, MO.

KANSAS CITY'S tuberculosis hospital is a municipal institution, located upon fifteen acres of a 135-acre farm, seven miles from the main portion of the city. The buildings of the institution are placed upon a plateau, which elevates them about 200 feet above the winding rock road leading up from the main road below, and from this vantage point the surrounding miles of tree-clad hills, streams, and gardened lowlands present a most pleasing view. In the northwest Kansas City forms the background.

The institution is reached by means of a private macadam road, branching from the Raytown or main road directly to the north and about a quarter of a mile distant from the site. From this point it extends around the cliffs to the top of the hills, approaching the buildings directly from the south.

The roadway is built at the edge of the cliffs, with huge masses of rocks, trees, and shrubbery on the hillside above and extremely low and rugged lands on the side below, where the most beautiful truck gardens are seen.

The buildings face in a southwesterly direction, whence come the prevailing winds, which are most desirable. The grounds immediately surrounding the buildings, for a varying distance of from 100 to 700 feet, are of a level and rolling nature, and covered with lawns beautifully designed and decorated with flower gardens and shrubbery, crooked drives winding and circling around and about the premises through the hills and valleys, to and from the entrances of the hospital and the future contemplated buildings, as noted on the group plan.

A bandstand occupies a prominent spot on the center of the lawn, where outdoor concerts will be given for the amusement and recreation of the patients. Croquet and other outside non-exciting sports are also provided.

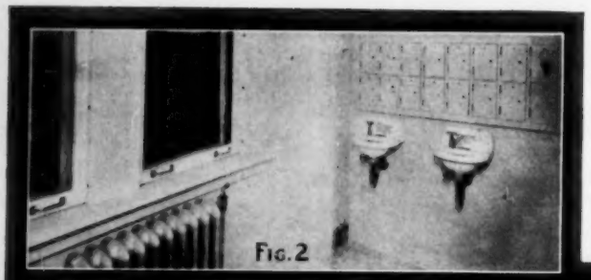


Fig. 2. Small lockers in wash rooms for patients, containing tooth brushes, towels, and dental supplies. Each compartment is provided with a key.

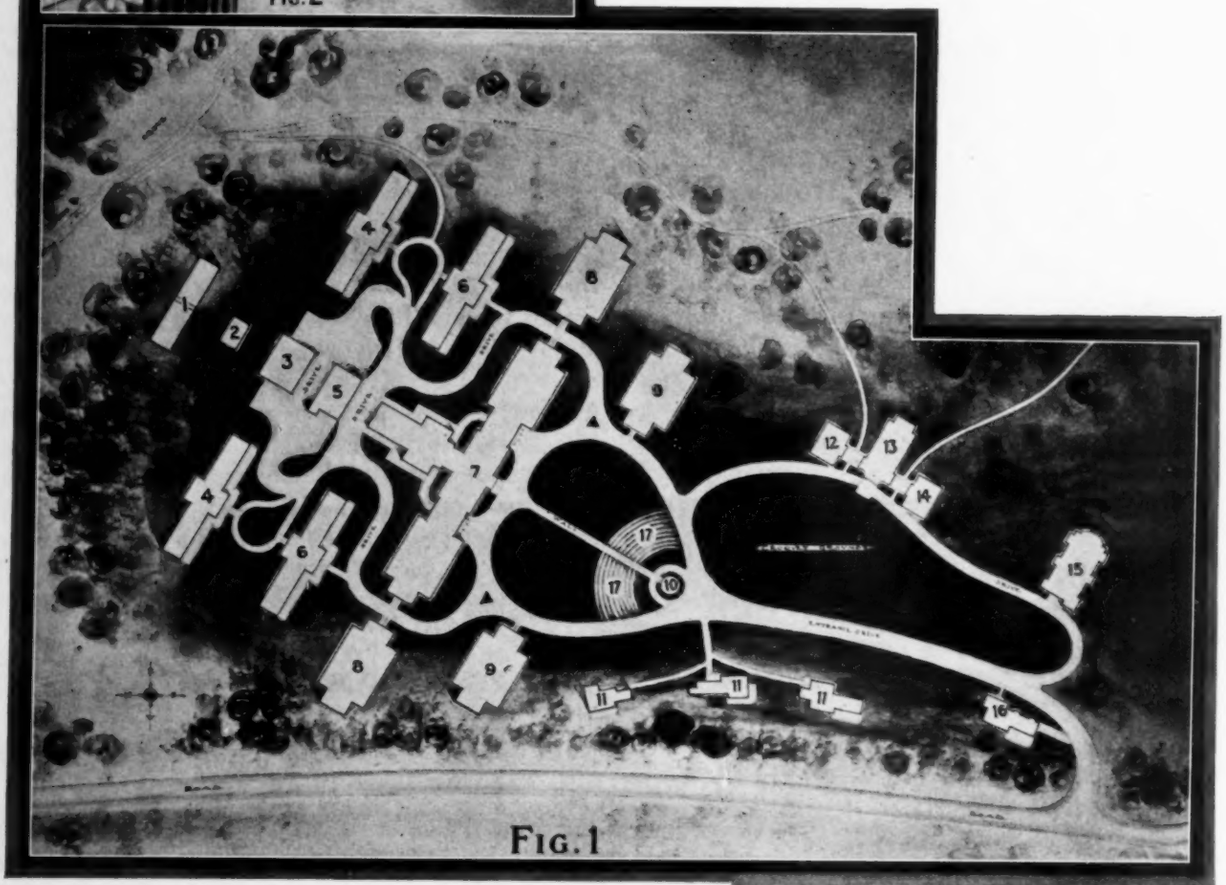


Fig. 1. Kansas City Tuberculosis Hospital. General ground plan. The straight road at bottom climbs the long hill to the hospital.

1. Filtration beds.
2. Septic tank.
3. Future garage.
4. Future lean-to buildings.
5. Power house and laundry.
6. Lean-to buildings.
7. Main building.
8. Future pavilions.
9. Future receiving ward.
10. Future band stand.
11. Future nurses' cottages.
12. Future women's library.
13. Future entertainment hall.
14. Future men's library.
15. Future chapel.
16. Future superintendent's residence.
17. Future concert benches.

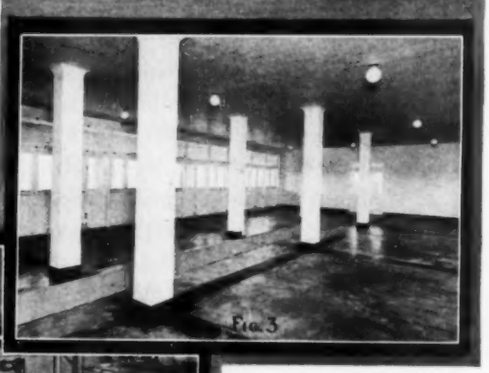


Fig. 3. Patients' ward and the French doors opening out on the fresh-air porches. Note the Dutch door opening into the recreation room and the round corners and angles.

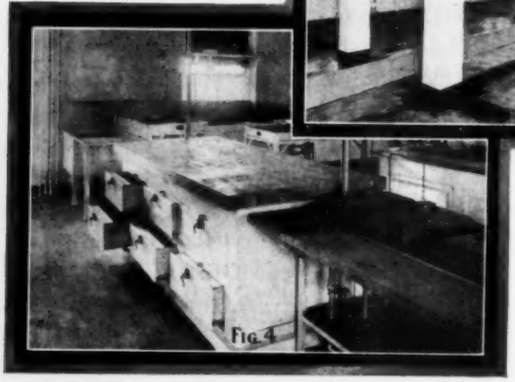


Fig. 4. Butcher's table, with drawers for various kinds of meat lying in refrigeration while the cook is preparing or cooking other foods. Note center weighted steam table covers. All kitchens and pantries are white enamel, and have nickeled brass piping and fittings.

FUTURE BUILDINGS

The future buildings contemplated consist of the following:

Additional wards for advanced patients.
Lean-to buildings for incipient patients.
Receiving wards.
Isolated quarters for patients in last stage.
Nurses' homes.
Libraries (for male and female).
Entertainment hall.
Chapel.
Bandstand.
Garage
Resident physician's quarters.
Postoffice.
Confectionery stores.
Bars for cows.
Silo.
Chicken houses.

The institution, when the above buildings are erected, will be a city within itself, and will be most interesting to hospital people.

ARRANGEMENT OF UNITS

The design of the institution was planned with a view of economy in the cost of maintenance, and the writer desires to call the reader's attention to the many original features installed, the manner of arrangement, and the effort made to obtain absolutely sanitary conditions. It will be readily seen that many inconveniences have been greatly reduced, if not entirely overcome.

The institution at the present time consists of a main building and power plant, constructed on the unit plan, in the shape of the letter T, and designed after the Spanish mission style. The main building is two stories high, with a basement under its center portion. The frontage is 379 feet and the depth 52 feet, the center portion extending back 125 feet, with a space of 30 feet to the power house.

The administrative offices are situated in the center unit upon the first floor, with the nurses' dormitory directly above, and the patients' quarters in each end unit on the first and second floors, with the patients' entrances and the nurses' offices between.

The commissary is in the rear unit, with the supply commissary below and the men's dormitory above. The units are joined to each other by corridors and partitioned off with swinging doors, the panels of which are glazed with plate glass. The superintendent's office is located so that he may step into the corridor and obtain a general view of the entire first floor, ascend one flight of stairs and obtain a similar view of the second floor. This affords constant observation of the institution with little effort, thus obtaining the best results.

DESCRIPTION OF UNITS

UNIT NO. 1

The administrative unit contains the following offices and rooms:

General business office.
General examination room.
Throat examination room.
Superintendent's living rooms
Nurse superintendent's office.
Drug room.
Laboratory and dark room.
Waiting and library room.
Staff dining room and serving room.
Linen rooms.
Public toilets and janitor's quarters.
Main stairs.

The main entrance is at the center of the unit, which opens into a vestibule and then into the lobby. At the left of the lobby is the general office, with an open counter, and at the right the waiting room and library; at the front are the main stairs leading to second floor, and beneath them the corridor to the rear unit; at the left and right of the lobby in the center of the building are the main corridors to the offices and the patients' quarters.

The superintendent's living rooms join the general office, and are equipped with a well-ventilated disappearing bed, private bath, and clothes closet. The waiting room and library at the right of the lobby are connected and separated by a large cased opening, presenting a pleasing view of an ornamental fireplace flanked on each side by bookcases. The examination rooms and laboratory are designed as plain as practicable, having large north windows, furnishing the desired light. The laboratory is equipped with modern fixtures of vitroware, instrument case, and dark room. The case is sunk in the wall, finishing flush with the plaster, and the dark room is provided with cases, drawers, shelving, and work table. The drug room joins the examination rooms, and is provided with a large window, lavatory, clerk's desk, and open and closed cases on two sides of the room. The cases are made the full length of the room, and provided with a counter shelf 24 inches wide and 32 inches above the floor, with locked doors and drawers below and open and closed shelving above. These are adjustable and extend to the ceiling. The superintendent of nurses' office is located opposite the laboratory, and equipped with chart racks, private telephones, and a nurses' signal system annunciator. The staff dining room is entered by the staff from the main corridor, and is but a short distance from the kitchen. It is a bright, cheerful room, and is provided with a buffet, sunk into the wall and finishing flush with the plaster. The back is glazed with a beveled plate glass mirror, and the doors and drawers are made with a swell front. A picture mold is placed on the walls 24 inches down from the ceiling, on which pictures appropriate for the room will be suspended.

UNIT NO. 1 B—SECOND FLOOR

The nurses' dormitory contains 11 sleeping rooms, a parlor, linen room, bath, and toilets. The rooms are large, well lighted, and provided with large closets. They are designed for two persons in each room. The superintendent's room is designed for one person, provided with a fireplace.



Fig. 5. Kansas City Tuberculosis Hospital. Main building. City prisoners camped on the mound removed a great clay hill where this level space now appears.

The parlor is located at the center of the dormitory opposite the main stairs. It is entered by a large cased opening and equipped with suitable furniture, and is to be used as a recreation room for the nurses. There are separate entrances to the patients' quarters, so that a nurse may go back and forth and answer a rush call without passing through the office portion of the building.

UNIT NO. 2—FIRST AND SECOND FLOORS

Quarters for the patients consist of four wards, each provided with the following accessories:

Fresh air porches.
Recreation room.
Dressing and locker rooms.
Emergency rooms.
Linen rooms.
Bed-pan racks.
Wash rooms and toilet rooms.
Shower and tub bath rooms.
Separate entrances.
Private covered passage to dining room.
Attending nurses' room.
Stairways to second floor.

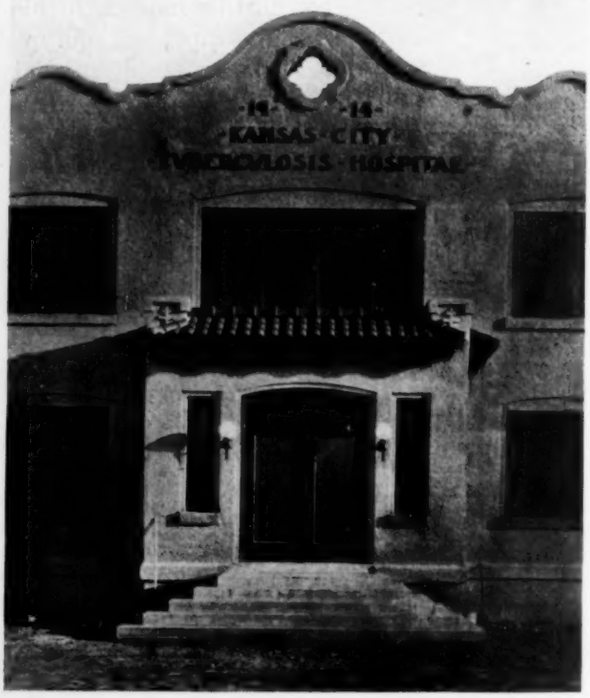


Fig. 6. Kansas City Tuberculosis Hospital. Main entrance.

WARDS.—Each ward is designed to house 30 patients, and is provided with openings on each side of the room, filled with Dutch doors, with transoms above, extending to the ceiling. The Dutch doors are designed so that any part of them may be opened and adjusted to suit the weather conditions. The patients' beds are placed opposite these doors, and may be rolled out on the porches, which are inclosed with screens. At the extreme end of the wards are the recreation rooms, which are provided with large French windows on three sides of the room, and equipped with game tables and magazine and paper racks. Two dressing rooms are also provided for each ward, and equipped with movable steel lockers, one for each patient. The toilets and baths are in separate rooms, each toilet being equipped with two closets, two urinals, five lavatories, two dental lavatories, large plate mirrors, and sixteen small lockers. These lockers are 6 by 8 inches by 8 inches deep, and in two rows, placed 24 inches above the lavatories and sunk into the wall, finishing flush with the plaster. Each locker is of ample size to receive two towels, soap, shaving mug, razor, comb and brush, tooth brush, and any other necessary supplies, for each patient, who will be required to keep all his supplies under lock and key. The bath rooms are divided into four compartments, with two tub baths and two shower baths, and large plate mirrors set in metal frames, sunk into the wall and finishing flush with the plaster, are placed over each tub. There are two linen rooms 7 feet wide and 14 feet long for each ward, provided with a window and equipped with cases on two sides of the room. The cases are made the full length of the room, with a counter shelf 24 inches wide and 32 inches above the floor, with locked doors and drawers below, and open and closed adjustable shelves that extend to the ceiling. Bed-pan racks are provided for each ward, constructed in the form of a case along original lines. The sides, back, top, and bottom are made water-tight of rust-proof material. The front is open, and the shelves made with ¼-inch rods

spaced 2 inches apart. The racks are raised off the floor 36 inches, resting on metal legs. The bottom forms a trough, with fall to sink. These racks are so constructed that an employee may place the bed-pans upon the shelves, attach the hose to the hot water supply, and wash and clean the pans without handling them. The wards are provided with independent entrances and covered passageways, so that the patients may be received, go in and out and back and forth from the wards to the grounds and to the dining rooms without trespassing or causing any congestion or disturbance in the administrative portion of the building.

ENTRANCE PORCH AND PASSAGEWAYS.—At the front entrance a covered porch is provided, with steps on either side and ornamental gate at the front. The floor of the porch is raised to a height level with the floor of an ambulance, thus allowing the receiving of patients and rolling them into the building without lifting. The covered passage is open at the sides and is wide, allowing ample room for the patients to congregate. It joins with the closed passage opposite the main dining rooms.

UNIT NO. 2 B—FIRST AND SECOND FLOORS

The main corridors in the entrances to the wards are large, and provided with wide, easy stairways for the use of the patients on the second floor. The attending nurse's room is entered from this corridor, and is equipped with chart racks, private telephones, signal system annunciator, and switches for the light control.

SIGNAL SYSTEM.—The electrical signal system is complete and installed in such a manner that the nurse may be called by a patient by a very slight touch on a push button. The call will be registered by means of a light appearing in the wall over the patient's bed, over entrance door or room in which the patient is located, and in the attending nurse's room, and also in the office of the superintendent. In answering the call the nurse releases the call by pushing a button only at the patient's bedside, otherwise the superintendent will be informed that assistance is wanted or that proper service is not given.

A nurse is in full charge of each ward and the telephone and signal systems are installed in such a manner that the superintendent will be in constant touch with her activities.

UNIT NO. 3—COMMISSARY

The commissary department, consisting of kitchen, dining room, bakery, cooler, storage rooms, work rooms, and grocery, have been carefully planned after much study of requirements for convenience of arrangement. The arrangement of the entire group of the commissary department was accomplished with a view to an economy of effort on the part of the employees, and each department may be entered directly from the kitchen. The employees may go to and from their various places of employment without passing through any of the other departments.

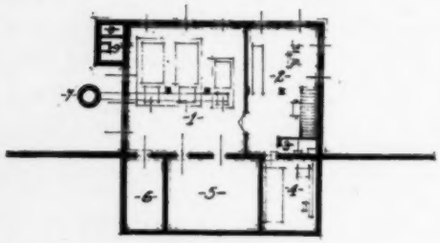
KITCHEN.—The kitchen is a bright, cheerful room, having large windows on two sides, which supply an abundance of fresh air and light, the fact being borne in mind in the design of this room that cheerful surroundings are as essential for the help as for the patients. The dimensions of this room are 30 by 40 feet. It is designed to accommodate 250 persons, and is equipped with the latest modern appliances, all parts of which are finished in white enamel, with nickel-plated trimmings. The equipment consists of the following fixtures and apparatus:

Range.
Broiler.
Steam soup and boiling kettles.
Steamer.
Egg boilers.
Coffee, tea, and water urns.
Dish warmers.
Steam pan tables.
Butcher table.
Dishwashing machines.
Pot and pan sinks.
Utility sink.
Ice water fountains.
Range canopies.
Ventilating ducts.
Serving trucks.
Sterilizing apparatus.
Serving pantry.

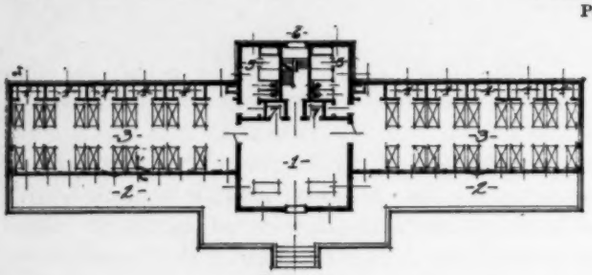
All equipment, excepting the range, is sufficiently elevated above the floor level to prevent the accumulation of dirt beneath, and the floor can be readily cleaned by flushing with a hose. The floor at the position of the range and on which the range is solidly seated is raised 6 inches above the surrounding floor level. The range, boilers, steamers, and soup kettles are in a row, placed in position along the wall at the far end of the kitchen, and provided with flues of sufficient size to insure a perfect draft, thus producing the best results. Canopies are provided, and placed over the range, boiler, steamers, and soup kettles. They are constructed with 1¼-inch metal studs suspended from the ceiling to a proper height above the cooking apparatus, and plastered with Portland cement on both sides, troweled to a smooth surface, and lined on the inside with rust-proof metal, with white enamel finish. Ventilating ducts also are provided, concealed in the ceiling of the canopies, extending to the walls on each side of the room and connected to flues that are extended to a point 4 feet above the building. These flues are provided with exhaust fans, pulling and forcing the heated vapor and grease-laden air from around the range and other apparatus. The ventilating ducts are extended out in the room in the angle of the ceiling, at the junction of the wall on each side of the room, and provided with intakes pulling and forcing all the escaping vapor, steam, and fumes from the room, thus cre-

ating a circulation of the air and removing all objectionable matter and leaving a cool, refreshing atmosphere.

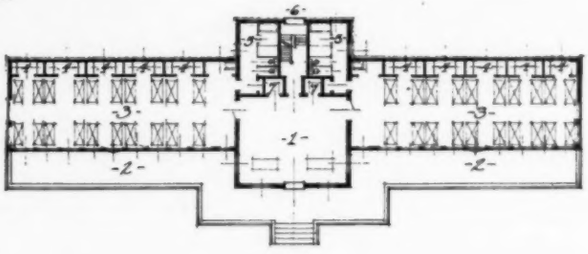
The cook's work table, steam table, and pot and pan sinks are located directly in front of the range and steamer, with a 3-foot aisle between. The cook's table is constructed along the lines of a kitchen cabinet. It is provided with a wide top made of hard maple, with a metal rack above for pots and pans, and on the under side of the top a refrigerator is provided and cooled with brine pipes. It is divided into eight compartments, consisting of drawers; the drawer backs, sides, and bottoms are metal, with ventilating holes, and the fronts are wood and insulated. The drawers are used for the various kinds of meats, etc., that are lying in refrigeration until ready for the fire, the fact being borne in mind that all perishable foods should remain in refrigeration until the time of cooking, thus insuring pure food. The steam tables consist of six pans of various sizes required for the various kinds of food. The lids are raised and lowered by means of a weighted chain suspended from above.



Power house.



Lean-to.



Lean-to.

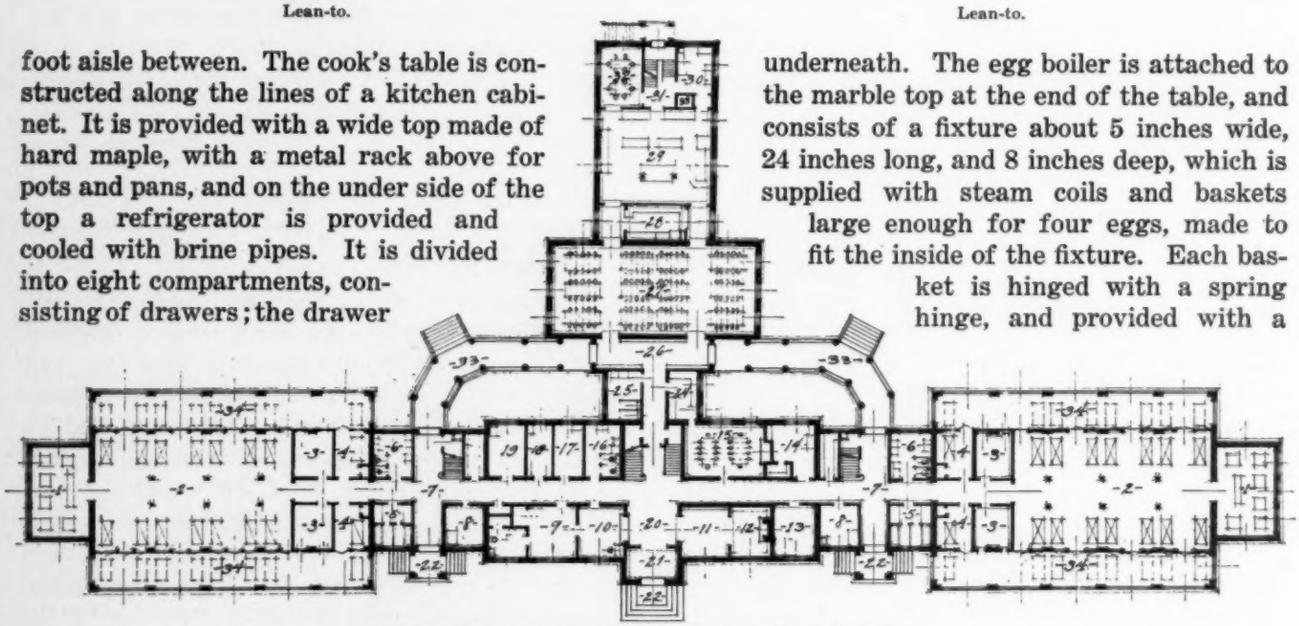


Fig. 7. Kansas City Tuberculosis Hospital. First floor plan.

MAIN BUILDING.

1. Recreation rooms.
2. Wards for patients.
3. Locker rooms.
4. Emergency room.
5. Patients' bath.
6. Patients' toilet and wash room.
7. Corridor.
8. Attending nurses' room.
9. Resident doctors' quarters.
10. Main office.
11. Waiting room.
12. Library.
13. Superintendent nurses' office.
14. Laboratory.
15. Staff and visitors' dining room.
16. Public men's toilet.
17. Throat room.
18. Drug room.
19. General examination room.
20. Lobby.
21. Vestibule.
22. Main entrance.
23. Patients' entrance.
24. Staff serving room.
25. Public ladies' toilet.
26. Passage.
27. Patients' dining room.
28. Serving pantry.
29. Kitchen.
30. Bake shop.
31. Rear entrance.
32. Help's dining room.
33. Covered passage.
34. Fresh air porches.
35. Elevator.

LEAN-TO.

1. Recreation room.
2. Open terrace.
3. Patients' wards.
4. Locker and dressing rooms.
5. Toilet and bath.
6. Rear entrance.
7. Linen closets.

POWER HOUSE.

1. Boiler room.
2. Engine.
3. Toilet.
4. Refrigeration room.
5. Coal bins.
6. Ash bins.
7. Chimney.
8. Sputum cup sterilizer.
9. Incinerator.

Coffee, tea, and water urns, cold water fountains, and egg boilers are in position directly opposite the cook's table and steam tables, with a 3-foot 6-inch aisle between them. They rest upon a table with marble top, and cup and saucer warmer underneath. The egg boiler is attached to the marble top at the end of the table, and consists of a fixture about 5 inches wide, 24 inches long, and 8 inches deep, which is supplied with steam coils and baskets large enough for four eggs, made to fit the inside of the fixture. Each basket is hinged with a spring hinge, and provided with a spring timer similar to that of a clock. When wishing to boil an egg one, two, or three minutes, or any part of a minute, the arrow indicator is turned and set for the length of time desired. When the egg is cooked, the basket will automatically spring out of the water; thus the egg is cooked and lifted from the water without watching.

The dish warmers are directly back of the urns, and the dish washer is at the side in position against the wall, with an aisle between. The

washer is provided with dish table in the form of a trough, with 6-inch hole at one end and a scrap food can on wheels below. The washer is run by power and the dishes dried by steam.

PANTRY.—The pantry is of unusual design, being inclosed on three sides with an open enamel serving counter, which is made a part of the kitchen. It is 18 feet long and 10 feet wide, and joins the wall between the kitchen and dining room. It is placed directly over the supply commissary, and provided with a dumbwaiter that carries food back and forth for daily use only. The pantry contains one large storage refrigerator and ice cream and milk coolers. The counter is provided with shelving and drawers, and equipped with sinks, with hot and cold water. It is raised 10 inches above the floor and rests on metal legs. There is ample space underneath for flushing and cleaning.

MANNER OF SERVING.—The equipment in the kitchen is carefully placed and located in such a manner that the waiters or waitresses may start with the serving trucks at a point near the cook's table, thence around two sides of the room to the various fixtures, thence to the exit opposite the serving pantry and into the main dining room, returning through an exit on the opposite side of the room to the kitchen, thus forming a circle. In this way efficient service will be obtained without congestion or waste of energy on the part of the employee.

BAKE SHOP.—The bake shop is equipped with an oven, candy and berry bowl, jacket kettle, table, refrigerator, and sink, planned and finished in a similar manner to the kitchen. It is located in a separate room back of the kitchen, with an exit between, and is only a few steps from the kitchen range, making it convenient for the cook in case he may be required to operate both. The baker's table is similar to a kitchen cabinet. It is movable and open all around, raised off the floor and provided with a marble top, with open shelves above, and flour and sugar bins, drawers, etc., below.

UNIT NO. 3 A—SUPPLY COMMISSARY

The supply commissary, consisting of refrigeration coolers, work room, storage rooms, vegetable and fuel bins, is located in the basement under the kitchen and so designed that the floor is on a level with the driveway in the rear. It is provided with large windows, furnishing ample light and ventilation, and an entrance in the rear opening into a main corridor, which extends through the center of this department, from which each compartment is entered independently.

STORAGE COOLERS.—The storage coolers are large and roomy, having a capacity of several months' supplies. The walls, ceilings, and floors are insulated with cork 12 inches thick, built in layers of 1½ inches, with a ½-inch layer of cement mortar between. It is divided into four compartments, one being for fruit and perishable vegetables, one for meats, etc., one for dairy goods, and one to be used as a vestibule. The coolers are entered from a corridor into the vestibule, thence into each compartment through large insulated refrigerator doors of the same thickness as the walls. The vestibule is provided and refrigerated, so that no loss of temperature will occur in the food compartments while opening and closing the doors.

SUPPLY COMPARTMENTS.—The supply compartments, such as grocery, work room, vegetable bins, and storage rooms, are inclosed with 1-inch mesh wire partitions raised 6 inches off the floor. Wire partitions were used in this instance, so that supervisory observation of the entire department is had with little effort, and perfect ventilation obtained.

PATIENTS' DINING ROOM.—The main dining room is a bright, cheerful room, having large windows on four sides, supplying plenty of fresh air and ventilation. It is 54 feet long and 24 feet wide, and may be divided into two portions by means of large rolling doors the full width and height of the room. It is entered by the patients by independent passages, and by the staff by way of corridors connected with the administrative portion of the building, thus relieving any possible chance of congestion.

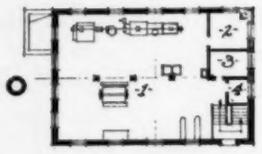
TABLES.—Instead of seating the patients at long rows of tables and close to each other, large round tables seating eight persons are provided. These tables are symmetrically located about the room, and give the appearance of a model hotel dining room, thus providing more satisfaction and content among the patients.

HELP QUARTERS.—The quarters for the male help, being located directly over the kitchen, are isolated from any other portion of the building. They are exposed to the weather on four sides and provided with independent entrances from the rear. There are eight sleeping rooms, shower and tub baths, toilet and wash room, linen rooms, and a corridor running through the center with large windows at each end.

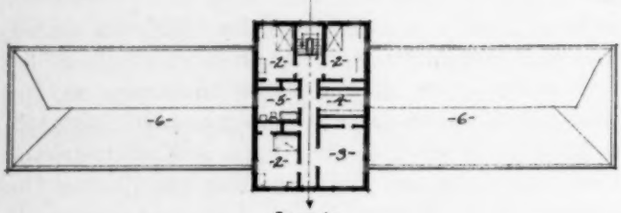
TRUNK ROOMS.—Large trunk and storage rooms are also provided, having sufficient windows for light and ventilation, and supplied with floor drains, so that the walls, ceiling, and floors may be thoroughly washed and flushed with a hose and the refuse carried away in the sewer.

MORGUE.—The morgue is located in the basement between the supply commissary and the

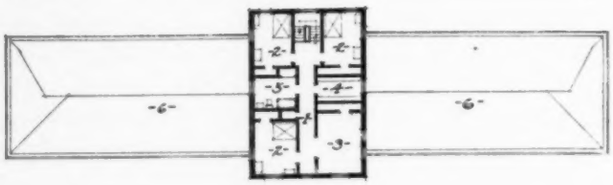
main portion of the building, and provided with two entrances from the exterior and one from the administrative department. The walls and ceilings are insulated and finished with white enamel. It is secretly located, thus concealing as many of the gruesome sights from the patients as possible.



Power house.



Lean-to.



Lean-to.

UNIT NO. 4—THE POWER HOUSE

The machinery for the laundry and power plant being located in a separate building 30 feet from the rear of the main building provides a condition whereby all vibration or objectionable noises caused by the machinery will not be felt or heard by persons in the hospital portion of the institution. The driveway between is constructed with reinforced concrete, and the coal and ash bins and refrigeration plant are under it, the floors of which are on a level with the floor of the boiler room. Cast-iron coal holes are inserted in the concrete, so that the fuel may be dropped into the bins directly from the vehicle. The boiler room and engine room are located in the basement and the laundry upon the first floor. A concrete tunnel is run from the basement of the main building to the refrigeration room and thence to the engine room, thus providing a passage by which each may be entered without one going outside. The coal and ash bins are directly opposite the fire doors of the boilers, with ample space between so that wagons may be backed in from the exterior, and the ashes and refuse from the boiler room may be easily loaded and carted away, the floor of the boiler room being on a level with the floor of the driveway winding around the hill, with an easy grade to the concrete driveway over the coal bins, which is on a level with the floor of the basement of the main building. The floor of the boiler room, being in this position, affords the proper return flow by gravity of the contents in the pipes from the main building.

SEPTIC TANK.—A septic tank with filtering beds is also provided, and is located about 100 feet from the rear of the power plant. This is also on the slope of the hill, and 150 feet from the filtering beds is a running creek into which empties all liquid on leaving the filtering beds. It is expected to be 90 percent pure when leaving the filtering beds.

ENGINE ROOM.—A concrete wall with dust-proof door separates the boiler room from the engine room, in which the electrical control, laundry power, vacuum cleaner motors, refrigeration plant, hot water boilers, and carpenter's work bench are located. It also has a concrete stairway ascending to the laundry and exit on the driveway over coal bins.

LAUNDRY.—The laundry is equipped with the latest improved machinery made for the sterilizing, washing, and cleaning of all linen and clothing used in the hospital.

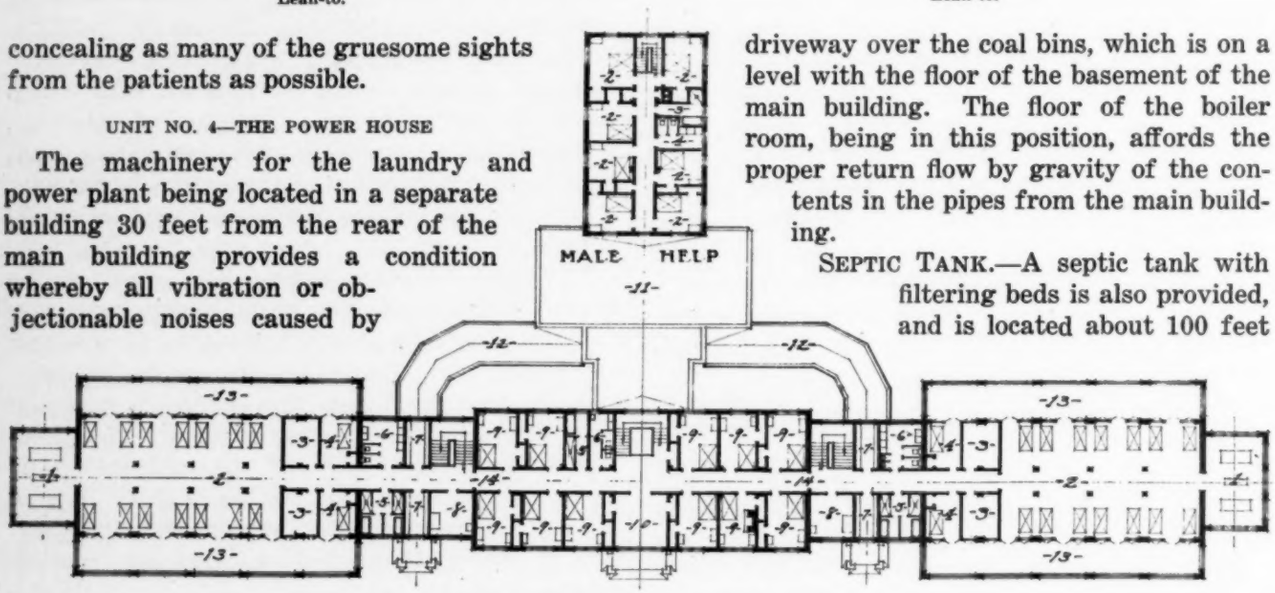


Fig. 8. Kansas City Tuberculosis Hospital. Second floor plan.

MAIN BUILDING.

1. Recreation rooms.
2. Wards for patients.
3. Locker rooms.
4. Emergency room.
5. Patients' bath.
6. Patients' toilet and wash room.
7. Linen rooms.
8. Attending nurses' room.
9. Nurses' bed rooms.
10. Nurses' parlor.
11. Roof garden.
12. Promenade.
13. Fresh air porches.
14. Corridor.

MALE HELP.

1. Corridor.
2. Bed rooms.
3. Bath.
4. Toilets.

LEAN-TO.

1. Corridor.
2. Bed room.
3. Parlor.
4. Linen room.
5. Toilet and bath.
6. Roof.

POWER HOUSE.

1. Laundry.
2. Office.
3. Cloak rooms.
4. Toilet.

GARBAGE BURNERS.—Garbage burners and sputum cup sterilizing apparatus are located on the outside of the power plant, adjoining the walls of the building. The garbage burner is connected with the hot water boiler, and supplies all hot water and steam required for the kitchen and sterilizing apparatus during the summer months.

SPUTUM CUPS.—The sputum cup sterilizing apparatus consists of two steam-tight tanks, one for fresh cups and one for soiled cups, and is the only place provided for them. Thus the incipient patient is required to bring his soiled cup to these tanks, depositing it in one compartment, throwing the pasteboard into the garbage burner, which is directly opposite, then take a sterilized cup from the other compartment and walk away. The engineer closes the doors each night, turns on the steam, and sterilizes the cups for the next day. In this way quite a problem is solved and a nuisance abated, as the patient takes care of the major part of this service, thus avoiding the necessity of securing employees for this work.

SANITATION

Sanitation is a very important factor in a hospital building, and was carefully considered in the designing of this institution. The walls and ceilings were plastered with hard wall plaster and the floors are of composition. All angles and corners at the junction with each other were made with a molded cove with 2-inch radius, the floor material extending up on all walls to a point 6 inches above the floor, forming a base and finishing flush with the plaster. All angles and corners were formed in such a manner as to avoid cracks, which usually occur after building is thoroughly settled. All door frames are of metal, with round corners and edges, with a 2-inch return on each side, forming a casing finishing flush with the plaster, and the doors are plain slab doors without panels or projections of any kind. The window openings are without casings, the corners being round, molded with plaster with 2-inch radius. The edges on the sash are round, and the glass is glazed with wood stops set in white lead putty. All other trim is sunk into the wall, the face finishing flush with plaster, not allowing any projections where they were avoidable. The marble wainscoting in toilet rooms is sunk into the walls and the plaster, also finishing flush with the face. All refrigerators in the kitchens, bake shop, work rooms, and serving rooms are carefully and neatly built in the corners or walls of the rooms in which they are located, extending from the floor to the ceiling, the bottom being raised off the floor 6 inches, so that the floors under them can be readily cleaned by flushing with a hose. They are supplied from the refrigeration plant in the power house by means of brine pipes, thus avoiding the necessity of certain employees entering these compartments. In this way cleanliness of the compartments will be greatly assisted and a more sanitary condition will prevail.

COMPOSITION FLOORS

The floors in general are yellow, with black borders in corridors and large rooms, and the floors of toilets, wash rooms, and bath rooms are white. The extremely light colors were used throughout the institution so that an unsanitary condition could not exist without being easily observed by the superintendent and the negligent employee reprimanded.

WATER SYSTEM

An ice water system is also provided, with drinking fountains, which are installed throughout the various compartments and the corridors of the entire institution. It is a circulating system, and provided with bubbling and cup outlets, and the water is guaranteed a certain temperature at the spout or outlet. In this way water tanks, waste water receptacles, and employees trespassing are eliminated, and a condition prevails which is another great aid to cleanliness.

TELEPHONE

A complete telephone system is installed, with a telephone in each compartment, and it is so arranged that a central operator is not needed. There are twenty telephones and twenty persons may talk at the same time. For instance, the superintendent wanting the steward of the commissary, pushes a button, which is located on the face of the phone, indicating commissary. The steward is notified by the sound of a bell and promptly responds. At the same moment the superintendent of nurses may call the attending nurse of a ward in the same manner and the conversation will not be heard by the superintendent or steward, and so on. The system installed in this manner provides a method whereby any compartment may be communicated with day or night without going back and forth through the building, and constant watch and supervision, from which the most efficient results may be expected, is had.

MANAGEMENT

The sanatorium is financed and maintained by the city of Kansas City, Mo., and occupied only by its people. It is managed by the Hospital and Health Board, which consists of three members appointed by the mayor to serve for a term of two years. The present members are Thomas M. Finn, chairman, Baylis Steele, and W. C. Weideman.

The institution is operated under the direction

of Dr. Paul Paquin, who owned and operated the Asheville-Beltmore Tuberculosis Hospital, Asheville, N. C., and is considered an expert on tuberculosis.

CAPACITY AND COST

The buildings are designed to house 150 patients, 24 nurses (female), 14 men servants, and the resident physician. It is of fire-proof construction and cost $151,561.61, which is equivalent to 31 cents per cubic foot, based on the following minute description of the materials used and equipment installed:

Building roadways to site		$ 856.90
Making excavation for the buildings		3,087.02
Plain and reinforced concrete work, such as footings, foundations, exterior walls of superstructures, entire bearing walls, columns, floor and roof slabs, porch foundation walls, footings and columns, stairways, area walls, steps, and floors, lumber and labor for forms, and the temporary inclosing of openings in winter		37,122.79
Brick chimneys, fireplaces, and interior gypsum block partitions		3,363.95
Cut stone entrance steps and door sills		562.90
Structural steel and ornamental iron work, such as I-beams, plates, bolts, anchors, coal hole chutes and doors, wall vents, stair railing, porch and passageway railings		4,031.00
Interior metal door frames		2,068.50
Lumber for front entrance porch, roof framing, rear passageway flooring, and roofs		327.28
Rough hardware, such as nails, screws, sash weights, and sundries		336.92
Trimming hardware, such as locks, butts, swinging door spring hinges, door checks, sash lifts, and fasteners, French door and window adjusters, door stops, hooks, cabinet hardware, etc., including labor and installing		2,768.50
Interior plastering, ornamental cornices, and exterior stucco on all walls, etc		8,448.60
Roofing (asbestos, 10-year guarantee)		1,111.50
Plumbing, including incinerators, sputum cup sterilizer, and hot water storage boilers		7,487.65
Heating plant, low-pressure power boiler, and steam sterilizing supply		9,400.00
Electric work, lighting, and power		3,794.00
Sheet metal work, gutters, vents, flashing, tile porch roofs, etc.		2,090.90
Reinforced concrete smoke stack		1,140.40
Painting, interior finishing, and wall painting		3,980.00
Marble work, toilet partitions, etc		3,002.00
Mantel facings and hearths		89.80
Mill work, such as door and window frames, sash doors, interior trim, and cabinet work		7,195.00
Carpenter labor in general		4,224.40
Superintendent		2,890.00
Watchman		1,216.56
Insurance liability		685.85
Sundry labor and materials		390.07
Screens complete, including labor of hanging in place	$1,521.60	
Composition floors, first and second stories	6,364.60	
Cement floors with hardener for basement	160.92	
Window shades	121.92	
Refrigerators, storage refrigerators, and refrigeration plant	5,263.00	
Ice water and drinking water fountains	1,125.00	
Dumbwaiters and elevators	374.00	
Light fixtures	435.00	—15,366.04
Kitchen equipment, including bakery equipment and the work room equipment, such as ice cream freezer, potato peeler, meat chopper, meat block, coffee grinder, etc	$ 570.00	
Disappearing bed	50.00	
Telephone system	763.00	
Nurses' signal system	800.00	— 7,313.00
		$134,350.73
Architects' commission		6,717.53
		$141,068.26
Furniture as follows: office desks, bedside tables, bed trays, post-mortem tables, linen hampers, food carriers, dressers, dining room tables, dining room chairs, nurses' reception room furniture, waiting room and library furniture, reclining chairs, table bed, sleeping ward chairs, sundry furniture	2,653.00	
Beds, mattresses and mattress protectors, pillows	3,022.35	
Bedding (blankets, sheets, bed spreads and bed linen)	1,500.00	
Kitchen and dining room linens	200.00	
Dishes and glassware	300.00	
Kitchen utensils	340.00	
Silverware	200.00	
X-ray	1,125.00	
Typewriter and sewing machine	125.00	
Medical and sundry equipment	500.00	
Patients' lockers in dressing rooms	528.00	— 10,493.35
		$151,561.61

THE INTERN QUESTION—WHERE LIES THE TROUBLE?

Young Men Enter Hospitals to Learn, and Staff Members Should Teach Them—Egotism and Self-Assurance Are Faults of Youth to Be Corrected—The Best Methods of Selecting Interns

By A. B. TIPPING, Superintendent Touro Infirmary, New Orleans, La.

IN many hospitals one hears complaints made by the administrators and by the medical staff against the interns. To what extent are the criticisms leveled against the house staff justified?

The recent graduate from the medical college who decides to enter a hospital for a period of one or two years, to further his education before commencing to practice, at least displays good judgment and a desire to perfect himself, so far as he can, in his profession before going out into the world on his own account. He realizes that the college curriculum does not embrace everything necessary, as indeed it could not, to equip a man for his profession, and feels the lack of actual experience and practical work. He desires close association with men of mature judgment and broad experience, and so he decides that he must enter a hospital as an intern. He at any rate raises himself above the plane of those who, having struggled through their examinations and passed the state board, determine to commence practicing immediately. Of course there are some who would prefer to become an intern whose home or financial conditions preclude the possibility of their pursuing their studies further. Such men are usually to be termed unfortunate rather than unwise.

In most hospitals no salary is granted interns, and they are not permitted to accept any fees or emoluments of any description while in the hospital; consequently it is necessary for them to make some provision for their requirements during their period of appointment. There is no question that an intern is fully repaid for his time if he applies himself studiously to his work, but, just as it is customary to give nurses in training a sufficient allowance to cover their expenses during their training, I am not at all sure that it would not be the best policy to provide interns with a sufficient allowance to meet reasonable

expenses during their term of service. There are many graduates who would like to enter a hospital for two years, but lack the necessary funds to pay for clothing and petty expenses during that time.

It is only logical to presume that an intern enters on his duties with the right spirit—with the determination to spend his time to the best advantage and gain as much experience as possible during his term of service. A doctor would hardly select a hospital for a loafing ground for a long period of time, and unless he were ambitious he would not desire to face the daily routine which he knows confronts him on admission. Why is it, therefore, that there is often so much dissatisfaction expressed with the intern staff? In my opinion the cause is often found in the attitude of the visiting staff to the interns.

Undoubtedly one of the main reasons for dilatoriness is that some doctors do not explain their cases to the interns when making rounds. Always remembering that the house staff has not entered the hospital for the good it can do the patients, or as a favor to the medical staff or the hospital, but to take a post-graduate course, it is rather disheartening for them to have to walk behind a doctor while visiting the patients, and receive instructions for their care without getting the attendants' views of the cases. If all attendants would go over the history of their patients and their methods of treatment with the interns, it would, or should, create the necessary interest for the intern. An intern who, under such conditions, fails to do his full duty should not be in the hospital.

Another reason is the desire of so many young doctors to specialize in surgery, and they therefore take a greater interest in that branch of the work than in any other. A good, round fee for an hour or so's work in the operating room looks good to them—much better than treating a medical case for a small fee per visit. In a purely surgical hospital such interns are acceptable, but the very great majority of hospitals are general in character, and, if those interns are placed on the internal medicine, children's, or ear, nose, and throat services, their interest lags and they do not give the proper attention to their patients. There can be no possible objection to an intern mapping out his future career and deciding in which branch of medicine to specialize, but an intern who does not apply himself to every branch to which he is assigned not only fails to fulfill his contract with the hospital, but also neglects to take advantage of the opportunities to properly equip himself for his future work. The various branches of medicine are so interwoven one with another that doctors must have a good general knowledge of almost every branch. Apart from this, there are comparatively few who can afford to afterward sit in their office and wait for purely surgical cases at the outset of their career; the great majority have to do a general practice until they have established themselves. The writer once heard of an intern who, on being reprimanded by an attending obstetrician for not having properly cared for a patient, stated that he was not interested in obstetrics and he didn't care if he saw another obstetrical case or not. It is to be hoped, for the sake of the prospective mother, that he never will if this report reflected the true feeling of the intern. Nevertheless I believe that if one were offered him in private practice, he would eagerly grasp the opportunity of having the case.

There would appear to be no reason why the environment of a hospital should affect a member of the house staff, yet during the first few months of his term the average intern gives a more conscientious service than afterward. He begins to lose some of his ambition, he is not "on his job" as formerly, or he is "too busy" to do what is requested of him. Excuses become the order of the day, and the result is that the patients do not get the attention to which they are entitled, and the attendant becomes dissatisfied with his services. Perhaps the intern becomes on intimate terms with some of the nurses, and he will await his opportunity to have a chat with one of them instead of watching his patients. He may have some attraction outside the hospital, and watch the clock until the time arrives when he is permitted to leave the building. A variety of causes can be put forward, but not a single good excuse. Those who do not strictly attend to their duties and utilize their spare time in study or reviewing the day's work, from the day they enter until their internship is completed, are not only doing an injustice to themselves, but also to the patients assigned to their care.

Some interns prefer to teach rather than be taught. Distended with pride and self-importance, with an exaggerated idea of his ability, such a man will, for instance, meet the attendant when he enters the building with the announcement that the patient sent in an hour previously has been examined by him and he has a stone in the kidney, and requires operation. The attendant has probably been watching the patient for a day or two at home, and has finally sent him to the hospital for further examinations. But this is unnecessary now; the intern in a few minutes has diagnosed the case for him. Having passed his examinations with honors and being in possession of a good "text-book" knowledge, he is prepared and fully able to diagnose the disease of the patients

brought to his service; and if the attendant should quietly and kindly tell him that he has possibly been a little hasty in arriving at his decision, and tells him that his present opinion, which he desires to verify, is that the patient has pyelitis, the intern will be shocked, and wonder how the attendant ever received his appointment on the staff.

Fortunately there are not many interns of this caliber, but there are some, and they require careful handling and watching. They are not necessarily hopeless, and the attendant should not throw up his hands and treat them as such. The hospital is a school for training interns, and it is not right to refuse to teach the men who think they know everything any more than it would be good judgment to let a precocious child who starts a college life have his own way. Tact should be exercised, and they should be brought down, step by step, from the pedestal on which they have elevated themselves in their own minds.

It is a matter of some doubt in my mind whether the competitive examination system for the admission of interns to hospitals is the best. If a system by which students were graded by each of the college faculty—not only on a basis of examination results, but with percentage for punctuality, studiousness, neatness in their work, and personal conduct—could be introduced, and those who have the highest marks in the aggregate at the end of their college course were given the appointments, it would not only give an added impetus to the students to apply themselves more closely and thoroughly to their work, but would give the hospitals the best men. The man who always comes out first in examinations does not necessarily make the most efficient intern. Seriousmindedness, self-sacrifice, application to and thoroughness in their work, ambition, and subserviency to discipline are the characteristics of first-class interns.

A system such as this would, in my opinion, be eminently fair to the students and to the hospitals. Any question of unfairness would be eliminated, because the possibility of any one student being graded too high on account of personal friendship or any other reason, even granted that that were probable, by one or two members of a faculty, would not avail him much when the large number of instructors and lecturers is taken into consideration. The possibility of unfairness in that regard is too remote to discuss.

It is easy to say that, if an intern persists in not doing his duty, he should be requested to resign or be given dismissal papers, but it is not always the best policy to do this. It is extremely difficult sometimes to find a substitute, and an intern staff has become essential to the proper conduct of a hospital. Unless an intern does something glaringly wrong or becomes quite unreliable, the management hesitates to dispense with his services.

Strict discipline and close cooperation between the management of the hospital and the medical staff are absolutely essential. Rules in abundance can be printed for the guidance of the intern staff, their duties can be clearly defined, but all these guides are useless unless infraction of the rules or neglect of duty are promptly dealt with. Such lapses cannot always be detected by the superintendent; he cannot look over the history and records of every patient and know if they have been written up properly; he cannot keep in touch with every patient and see that the proper care and attention are given by the interns; he has to rely on the reports of the medical men, who sometimes hesitate to give an adverse report on an intern when they should. Not that an attendant should go to the superintendent with every little complaint—such matters are better adjusted between themselves; but if the intern continues to be unsatisfactory and displays no anxiety to improve, he should be reported, as that is the only method by which it is possible to remedy the condition.

One point must be remembered, and that is, interns will give the best service to those who make it a practice to teach them and so create interest in their work. It is just as much the duty of the members of the visiting staff to instruct the members of the intern staff as it is for them to operate on or visit their patients. The fault is not altogether one-sided. If the attendants will strive to help the interns along, sustain their interest in the patients by giving them the benefit of their greater experience, and explaining why and how they arrive at their conclusions and lines of treatment, instead of merely using them to inscribe their orders or to care for any emergency which may arise during their absence, I believe there would be fewer complaints against interns. The interns, on their part, must not attempt to exceed their duties; they must remember they are students, not in charge of patients, but in attendance on them under the instructions of their chief, whose orders must be precisely carried out and with whom they should keep in constant touch.

In Spain leper houses are mentioned as early as 1067. In France, too, leprosy was common very early. In 1225 France, which at that time comprised only about half of its present area, had about 2,000 leper hospitals, as is evident from the last will of Louis VIII., who donated 8,000 solidi to each of these institutions. In England, it seems, leprosariums were established much later.—C. d'Elvert.

THE LAUNDRY IN A THOUSAND-BED HOSPITAL

New York City Hospital, in New Building and With New Equipment, Employs Rigid Technic and Careful Bookkeeping System—Some of the Details of Management Which Fix Individual Responsibility

By CHARLES B. BACON, M. D., Medical Superintendent New York City Hospital, Including Central and Neurological Hospitals

OWING to our inability to secure corporate stock issue for the purpose of erecting a modern laundry plant, it was necessary for many years to conduct our laundry activities in a very old, dilapidated building located far from the hospital, with limited facilities and with an inefficient operating staff; many of these were unpaid, necessitating frequent changes among the help. Therefore, not only our physical plant, but our operating staff, was such as to require constant and vigilant administrative supervision. It was, indeed, a formidable situation, and we are pleased to dismiss thoughts of those days with a brief comment. Hospital activities are ever extending—new appeals, even demands, are constantly made, and we have found it necessary to make available every possible nook and corner, until we have a capacity of approximately 1,000 beds.

The laundry service in a hospital of this size becomes at once of vital interest and importance. I fully appreciate that many of my coworkers have been hampered by similar conditions, and have longed for the time when a modern laundry building completely equipped could be afforded.

Four years ago corporate stock issue to the amount of $100,000 for building and equipment was secured, plans and specifications prepared, building erected and equipped, and placed in operation July 1, 1913. I immediately determined to place our laundry work on a substantial basis, aiming toward a maximum of efficiency in organization, management, control, and accounting, with the hope that the needs of the institution might be promptly and effectually met. Furthermore, I realized that increased laundry efficiency would at once mean increased efficiency in all directions, and would decidedly benefit the patient; this in the final analysis is the supreme object every true hospital administrative officer seeks.

A glance at the illustration will greatly assist the reader in forming an opinion of our laundry building. This is a fire-proof, three-story and basement building, with elevator service, and equipped throughout with modern machinery operated by electricity, each major machine having individual motor drive, except washers, which are operated by the Darrin automatic control in two series of five washers to each control. Note also the large window area, permitting a maximum of fresh air and sunlight. Where ample grounds are available, I much prefer the one-story to the multi-story laundry building, so planned and equipped that the work proceeds systematically from entrance to exit, including sewing rooms, with machines for making new articles, repairing, marking, etc. Furthermore, it is desirable to set apart an area for the purpose of outside drying of clothes, for it is indeed true that outdoor drying in the air and sunlight affords a certain freshness not procurable from inside drying.

SEGREGATION OF LAUNDRY ACTIVITIES

Basement floor.—All laundry bags, plainly marked, containing soiled goods, each article also plainly marked, are here delivered from all units of the institution by collectors; received and counted by two men designated as the incoming laundry sorters and counters. This count is recorded on the incoming daily report of laundry. Every article sent to the laundry is listed on the laundry inventory sheets, which are made out by the sender in duplicate. The original is detached and placed in the laundry bag, and the duplicate retained by sender. The inventory of the sender is immediately delivered by the collector of laundry to the clerk, and the incoming count made by the laundry counter of incoming articles on the completion of count of articles contained in the different containers. This count is made independent of the sender's inventory; in fact, the purpose of immediately forwarding the sender's count to the clerk is to make sure that the incoming laundry count is strictly independent of this. The clerk immediately compares these lists, and any discrepancy is promptly noted and reported. This practice is followed in the case of all incoming articles. The correct account is entered by the clerk in the official laundry record book. In case of officers, physicians, nurses, and employees the official record is made under the sender's name. Wards are treated individually. The persons sending are held strictly responsible for having every article plainly marked and listed in original and duplicate. The retained duplicate is later used in checking returned goods.

Let us now return and follow the soiled wash from the sorting and counting room for incoming goods as above described.

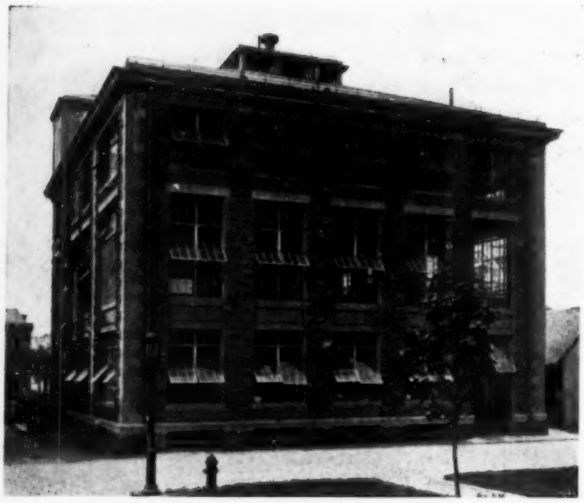


Fig. 1. New York City Hospital laundry, Blackwell's Island.

Third floor.—The soiled wash thus sorted and counted is placed in trucks and conveyed by elevator to the wash room located on the third or top floor. Here are 10 washers, 4 extractors, 3 soap tanks, 1 starch tank, hand tubs, 1 truck dry room and trucks, tables, baskets, etc.; also 3 metal soap tanks, each having a capacity of 750 gallons, in which we make our own soap.



Fig. 2. New York City Hospital laundry. Wash room. Note group arrangement of machines.

Second floor.—The goods washed and extracted are removed from extractors, and immediately placed in trucks and conveyed by elevator to the second floor. Here are located 2 mangles, one large and the other intermediate; 14 hand ironing boards, each provided with 2 hand irons heated by gas; 2 Universal garment pressers, 2 conveyor dry rooms, body ironer, collar and cuff ironer, trucks, tables, baskets, hangers, etc.

First floor.—Goods, when ironed and folded, are placed in basket trucks and conveyed by elevator to the first floor and delivered to the counting and sorting room for washed goods. The laundry clerk is established in this room, and is responsible immediately under the supervisor of laundry for accuracy of sorting, counting, recording, accounting, etc., of all washed articles. Here every article must be carefully examined and special attention given to necessary repairs, mending, marking, etc. If found to be in good condition, articles are folded and placed in sanitary laundry trucks and conveyed directly to the ward or other proper destination. The delivery must be to the person responsible for these articles. This person at once removes goods from the trucks, counting and comparing articles received with duplicate inventory, immediately reporting any discrepancy, and depositing articles directly from the truck to linen shelves in the various ward supply closets. All articles requiring attention, such as mending, repairing, or marking, are referred at once to the sewing room. In this room many articles of wearing apparel, bedding, and table linen are made, together with all repairs, mending, marking, etc.



Fig. 3. New York City Hospital laundry. Drying room. Note traveling hanger.

The material is purchased in bulk in large quantities under contract and in accordance with standard specifications. A portion of the sorting room for washed goods is used for condemning worn-out articles. Final condemnation is made in the presence of the head laundress, matron, and superintendent of hospital or his assistant. An accurate record of all articles so condemned is kept. Another section of this floor is occupied by lockers for help. There is also a conveniently located room on this floor equipped with disinfecting chamber, sterilizing washer, extractor, etc. Another section is fitted up for the purpose of washing and sterilizing soiled surgical dressings, subsequently to be used as outer dressings. We have only recently inaugurated this latter system. Wash rooms, lockers, and toilets are located on the basement floor. A daily report of all laundry activities is rendered to the superintendent, and also weekly and monthly statements.

REQUIREMENTS FOR EFFICIENT ORGANIZATION

Given a modern laundry building and equipment, the following requisites are essential:

1. Efficient manager.—An efficient person should be in charge, one having ability to manage this department along successful commercial laundry lines. It is often stated that no business is bigger than the person at its head. This we believe to be true, and is well exemplified in this particular position. In addition to possessing a thorough knowledge of the laundry work and machinery, such a person must know how to handle help. This requires much tact—even then frequent disappointments occur. We must remember that for the greater part help of this class is poorly educated, many of the people being intemperate, shifting, and even often failing to report. Administrative officers of hospitals and training schools for nurses should ever be mindful of these conditions, and encourage the one in charge who is making an honest effort to do his or her best in conducting the affairs of the laundry department.

2. Cooperation.—I am often impressed with the need among officers, physicians, nurses, employees —in fact, among all members of our hospital family—for a closer cooperation. This is the oil, above all other lubricants, that keeps our hospital machinery running smoothly without friction, makes for efficiency, loyalty, completeness, and maintains a maximum esprit de corps—in short, the true "hospital spirit." I confess a liking for these words. Moreover, such a spirit cannot be maintained unless each member is loyal and willing to cooperate, each one with another. Constant criticising is not only unpleasant, but sooner or later engenders bitterness. As a result, interest lags, and work is not well performed.

3. Sufficient help and supplies.—In these days of strict economy we are continually called on to achieve results under a minimum expenditure of money for labor, equipment, and supplies. The operation of our laundry work should not be handicapped. Clean linen and plenty of it at all times is essential, and any institution having a right to exist has no right to fail to recognize this principle as a duty. We hear much about standardization. I am in accord with this movement, with its beneficent results—that is, standardization of laundry building plans, personnel, labor performed, equipment, supplies, methods of accounting, recording, etc. We are convinced that the good results obtainable from laundry accounting methods amply repay for the additional amount of labor. We are thus enabled to check and discover the location when discrepancy arises, and hence place responsibility. A closer supervision is thus maintained and methods aiming toward accuracy established. Every hospital administrator knows how frequently the supervising nurse states she does not receive from the laundry the full number of articles sent. Without an accurate list made by or under her supervision of the outgoing and incoming articles, also list made by the laundry counter attached to the laundry staff of incoming and outgoing articles, it would be impossible to locate the place and person responsible for discrepancy.

In preparing this paper I desire to state that it has not been my purpose to touch too much on the various details; in fact, many have been purposely omitted. On the other hand, I desire to present, particularly to those who find the laundry department a difficult problem, a plan of operation which we have found and continue to find thoroughly practical, far more efficient than our former methods, one which definitely fixes responsibility, encourages economy, and recognizes the correlation between the laundry and the various other services of the hospital.

Finally, I wish to express my sincere appreciation to the Hon. John A. Kingsbury, commissioner of the Department of Public Charities, and Deputy Commissioners, Hon. Henry C. Wright and Hon. George G. Thomson, for their hearty cooperation and valuable advice in all matters, without which it would have been utterly impossible for us to have inaugurated many of the improvements specified in this paper. I wish to accord to them much credit for these and other improvements thus far effected at this institution.

The Arabs had already established hospitals in Spain in the eighth century.

APPLICATION OF PRINCIPLES OF ORGANIZATION TO HOSPITAL SERVICE[1]

Organization Is Not a Fetish, Not a Mechanical Figure, But a Flexible, Living Thing, by Which All Forces Are Marshaled for Achievement—The Patient Is the Center and Object of Hospital Service

By ROBERT G. VALENTINE, Boston, Mass.

WHEN I was asked to speak to this meeting of workers in hospital social service, I regretted that I had not first said to a strong group of hospital executives what I am now going to say to you. I do not like even to appear to be talking behind anybody's back, and, also, it seems fairer to state one's point of view in the company where it will find its strongest opponents. When I used to make the statement that there never would have been a drop of white blood shed by the Indians if Columbus and his followers had started right, I liked to make it to army officers. Then it was not only a real pleasure to me, but a definite education to some other people, when army officers who had been engaged in some of the bloodiest fights with the Indians got up and said they agreed with me. Were I to read this paper before a group of hospital executives, I believe many of them would agree, and their agreement would be a part of the educational process by which others would come to agree. Anyhow, from the point of view of this discussion, we should all put ourselves in the position of hostile critics.

I. PURPOSE OF A HOSPITAL

The first question on hospital organization seems to me to be: What is a hospital for? The hospital is for the patient. Valuable research may be developed in connection with the patients, skill may be acquired by physicians, surgeons, nurses, and hospital social workers as they deal with the patients, but the hospital exists primarily for the patient, and not for the doctor, surgeon, nurse, or hospital social worker. This seems like a trite statement, yet such lay experience as I have been permitted to acquire has led me to believe that the patient, while perhaps not a minor matter, is perhaps a secondary matter in a hospital.

But the subject appears less simple when we attempt to define the patient. In this definition we must make some delicate distinctions, for an apparently individual patient is not an isolated phenomenon. He still possesses, even as a patient, an unseverable relation to the present community and an unseverable relation to the future community. It should be borne in mind that every community is the world in little, exhibiting industrial, social, economic, political, and religious problems. If the patient has a communicable disease, even in a highly diluted sense, he must be considered not merely with his own individualistic best interests in mind, but also as an integral part of the community's best interests. In some cases he should be temporarily or permanently segregated. Each patient is not only a life, but a part of the stream of life. Therefore, each patient presents a particular point of application, not only for curative, but preventive, action.

In this connection it becomes clear that in two other important senses the patient is not only a life, but a part of the stream of life, for, first, his relation to his own future and to the future of the community in which he lives makes it important that he should be trained to a deeper sense of responsibility for his health, and, since his presence in the hospital is a great opportunity for acquiring this sense of responsibility, it becomes inescapable that the education and training of patients is a hospital function; for every patient is a blot on the humanity of the past in so far as that humanity has trespassed on fundamental laws, and the hospital should be one of the most powerful agencies in the community for diminishing the supply of patients.

In the second place, and perhaps this is the most dynamic point of all, the patient is the opportunity for knowledge by which future patients are more skillfully treated. He is not only the object of immediate humanity, but the subject of ultimate humanity. While delicate distinctions are being made between his individual rights and his social rights, he is the stimulus to invention, by which he shall be saved, but his kind shall perish.

If it be true that the patient is the prime consideration in a hospital, the hospital immediately ceases to be primarily a medical institution and becomes instead primarily a human institution, in which not only medical knowledge, but psychological knowledge, social knowledge, industrial knowledge, home knowledge and tenement house knowledge become prime considerations. It is, therefore, a fundamental condition of service in a hospital that it should represent the community. It should not only represent the community; it should excel the community. What the ordinary community does for the sick individual in crude and unorganized ways, one feels, from the very look of a

[1] Address delivered at the Massachusetts General Hospital on the occasion of the tenth anniversary of the Social Service Department.

hospital, from the very look of the well set-up physicians and nurses, that the hospital, with its knowledge and skill, is much better equipped to do. Yet perhaps as things are today it is often less humanly efficient than the crude unsterilized forces of the community.

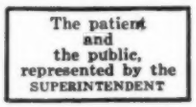


Chart I.

II. FUNCTIONS OF A HOSPITAL

The second question the answer to which will help us to determine what hospital organization should be is: How can we make the fact that the hospital exists for the patient not merely point to an ideal purpose, but that he is a daily concrete part of the structure of hospital organization? We must learn to see that a hospital is primarily concerned with two functions, the social and the scientific, each of which is of equal rank with the other, and neither of which should be subordinated to the other. Furthermore, we must see that these two functions, the social and the scientific, are all the functions that a hospital should possess—that every other activity of a hospital is in some manner subordinate to one or the other of these two.

The principles underlying each of these functions should determine the form of organization of a hospital. On the social side it is a prerequisite of the wisest treatment of any patient to know the motives and conditions of his life, and this I take to be the controlling element in mapping out the activities of hospital social service. Here it should be noted that our definition of the patient contains the roots of all the relations which should develop between hospital social service and economic, industrial, social, racial, political, and religious development.

On the scientific side it is a prerequisite of the wisest treatment of any patient that there should exist in the hospital fullest opportunity to apply to every patient the sum of medical and surgical knowledge, and this I take to be the principle which controls the planning of all the scientific work in a hospital. Here it should be noted that our definition of the patient contains the roots of all relations which should develop continuously and vigorously with medical schools and research laboratories.

III. PLACE OF BUSINESS ADMINISTRATION IN A HOSPITAL

About matters of organization we still have much to learn. The truly wise among us are not dogmatists, but questioners on a pioneer journey. But it seems to me a fairly sound hypothesis that in building up an organization we should build from the bottom up; or, to take a military simile, from the firing line back; or, to take a factory simile, from the workers back. Take, for example, the soldier in the trench. The whole military organization, including its industrial and social aspects, of that soldier's country can be tested out by asking, both in the field and at home, whether everything that is planned and done helps the man in that trench. Everything that does not help him or hinders him is worse than unnecessary. So it is with the particular worker at a particular machine in a shop. All behind him—the foreman,

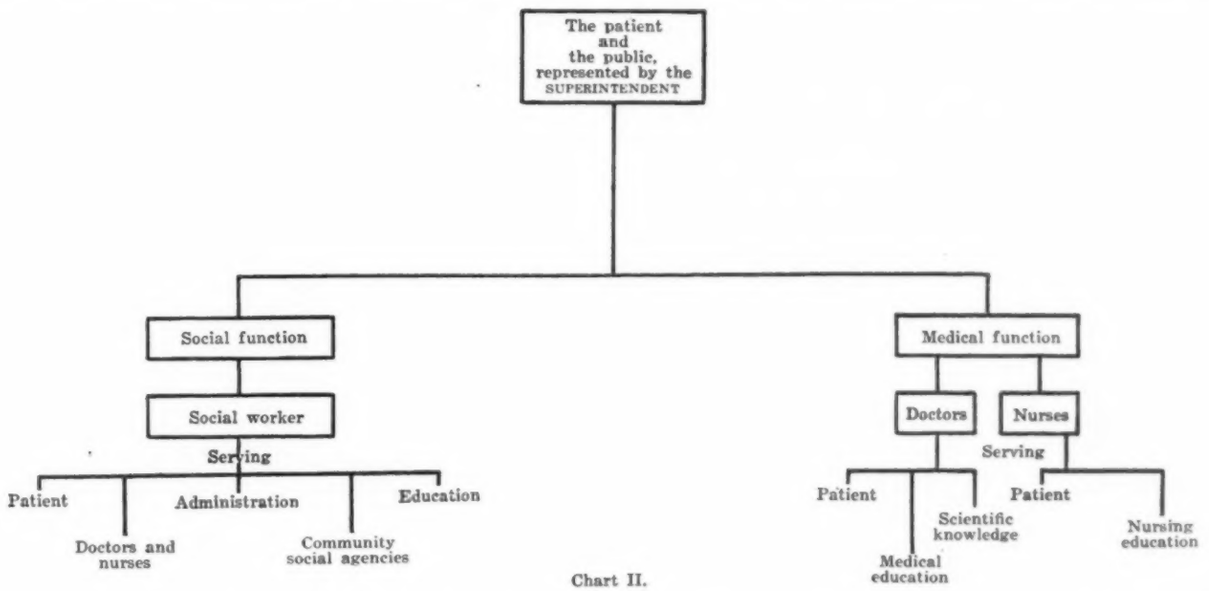


Chart II.

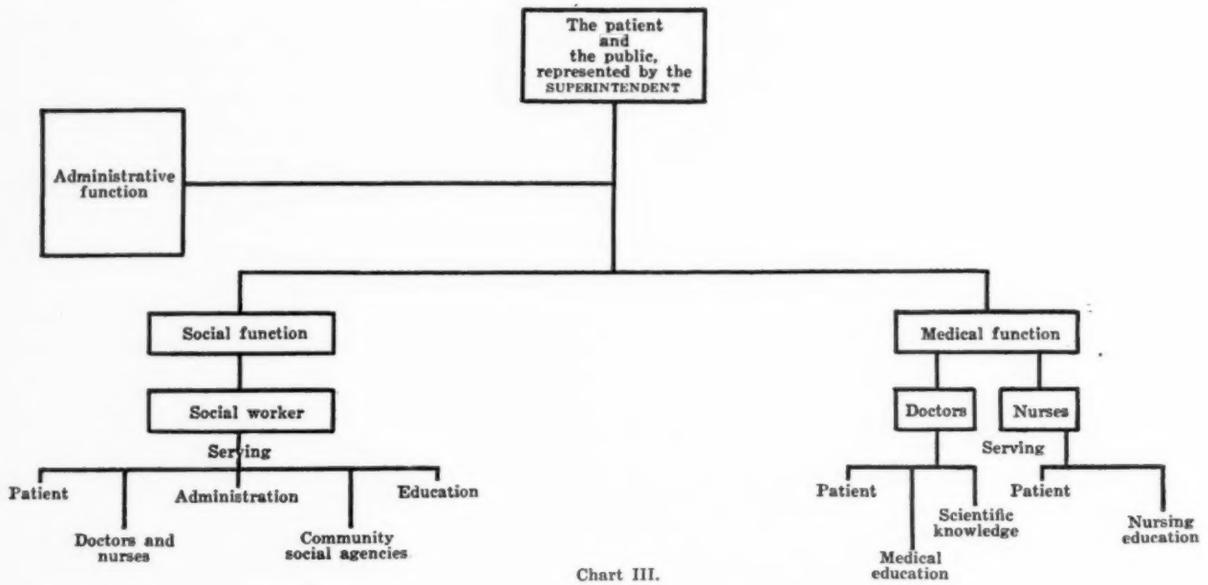


Chart III.

the superintendent, the managers, the board of directors, the shareholders—are only legitimate if they help him at his work. So it is with a hospital—the test of legitimacy is the service to the patient through the social and scientific functions. It thus becomes clear that all administrative functions are the servants of the social and scientific functions, as appears on chart III. The administrative and business end bears, you will see, a staff relation to the general manager of the hospital, who represents the patient and the public, as we saw him on chart I.[2]

[2]Staff in the "line and staff" sense; not in the hospital staff sense. In this sense the "staff" advises the "line," with expert advice always at hand, and gives orders.

IV. THE HOSPITAL EXECUTIVE

The next question seems to me to be: How does the general manager, representing the patient and the public, and giving line orders in the light of the best business and administrative staff advice, make it certain that he handles his job efficiently in order to mobilize the social and scientific forces on behalf of the patient? I assume the general manager to be a man or woman desirous of facilitating the functions and every part of each function in the best performance of its service. He must be of intellectual and executive capacity to keep his sense of perspective amid all the exigencies which arise. Take, for example, the

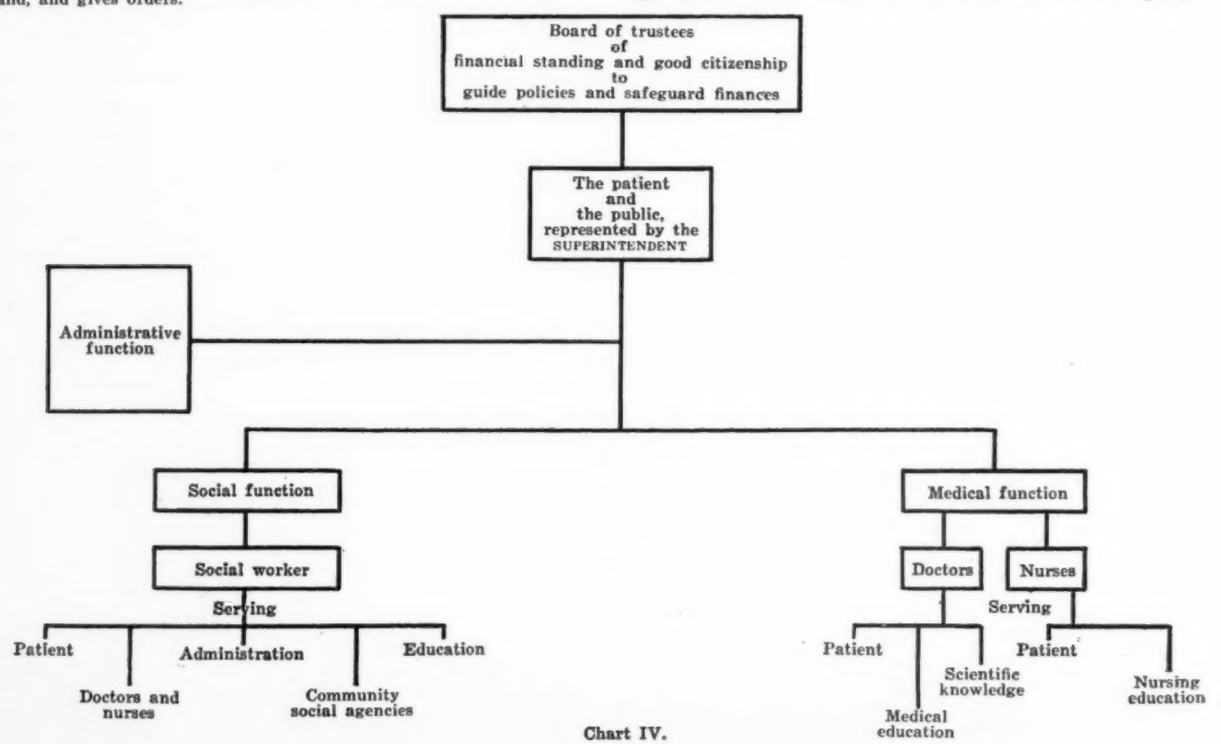


Chart IV.

question as to when or how often the family or friends of a patient should be allowed to visit him. Another question: Should autopsies be made in all cases where the physicians request it, or only on consent of the family? Another question: Is the right balance held always between medical and surgical treatment? Other questions: Taking financial limitations into account, is equipment well proportioned among all services? Is each service so developed as to be of adequate assistance to other services? Is there overstrain and consequent inefficiency among the staff? Because of limitations in these directions, are patients accepted who cannot be properly cared for? Is the hospital becoming overinstitutionalized? The mere statement of the case makes it appear to us axiomatic, I think, that no one man, however desirous he may be, is wise enough or strong enough to answer the questions alone—he must have help. Here is one of the very numerous cases where it is necessary for us to give consideration to the fact that the strong need help as much as the weak, or more. The hospital executive needs help just because of the strength of his position. How can he get it? He must get it, first of all, in his relations to his board of trustees.

The factors which go to make a good board of hospital trustees are good citizenship, financial standing, and keen judgment of men. Unconsciously as these powers may sometimes be exercised, they are nevertheless existent. At least at the start these qualities, as expressed in the ideals of the trustees, affect the whole policy of a hospital manager, since the trustees appoint him. So far the situation is entirely an autocratic one—the director at the start is a personal servant of the trustees. If he is a person of Napoleonic characteristics, facing a strong board, or a less vital person, facing a fairly acquiescent board, he may come to dominate the situation. But, either as servant or dominant, his relation to his work is unsound, because neither he nor his board of trustees, singly or together, have any guarantee that he will always stand where, if the principles we have so far laid down are correct, he ought to stand—in effect, by the bedside of every patient in the hospital, by the side of everyone who comes to a clinic, and by the patient in effective follow-up treatment, advice, and knowledge of results. The hospital executive is surely a case of the strong needing help.

V. THE STAFF AND REPRESENTATION

Our next question on hospital organization, therefore, is: How can the board of trustees and the superintendent, who should represent the patient, use himself and the board as servants of the patient to build up guarantees that he will remain progressively efficient? The best hypothesis seems to be that he can insure his good work, and be certain of getting always better and better work, only through representation.

The principle of representation involves three elements:

1. A board composed of representatives of all the parties concerned in decisions.
2. Information available for consideration by this board, and developed in a most thoroughgoing, scientific manner out of the day's work.
3. A method of procedure by the board in considering this information which insures that each element under consideration shall be studied free from confusion with other elements.

As to the first point, in any hospital, as in any family, institution, or business concern, a lot of forces are always acting. This activity of forces is inevitable, whether they are organized (chart V) or unorganized. The only question, then, is: Are they better organized or left in their chaotic state? I think we shall agree that in a hospital, as in any organization, the right idea is to get into a central body representation of all the elements of service, for only in this way can we be sure to discover and handle intelligently the forces which exist. It becomes a necessity, then, of wise human conditions to make a conscientious attempt to understand and relate all the forces. To organize in this sense means that we procure always greater constructive criticism and always greater harmony among functions. And there is an interesting byproduct—we always find that to recognize forces that do exist and act, and bring them into effective organized relations, taps sources of invention and power unknown before. A hospital, for example, in which every element on chart V is not, as a matter of routine, effectively represented in decisions as to policy, is bound to give its patients a service far short of its inherent capacity.

The second point—the need for information and data out of the day's work—requires attention for a moment. Every job in an organization, without exception, ought to be thoroughly analyzed and its description written out. Moreover, the relations between all jobs should be also analyzed and written out; hence, on the completion of this work, there would exist a comprehensive description of the whole organization. As a part of the description of these jobs, the qualifications needed in the personnel would appear. At least once a year every job description should be carefully revised. This revision should be a continuous process, so that the latest knowledge

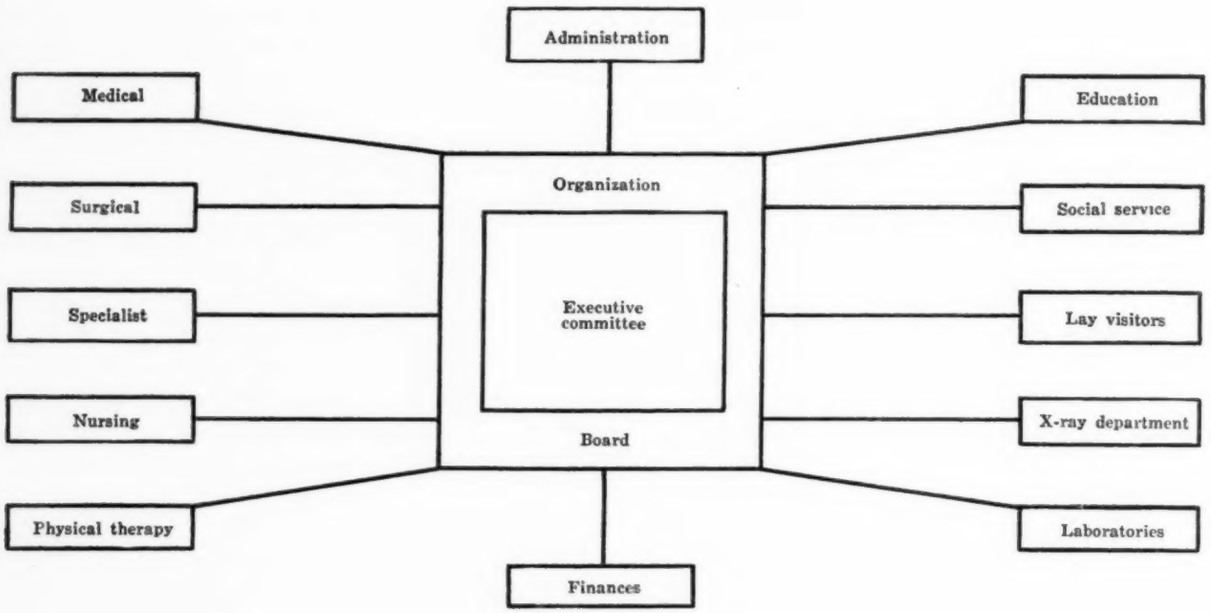


Chart V.

as to the demands of a particular job should be incorporated in its description.

The third point—the procedure of the representative body—we can now analyze. Suppose that the job of a salesgirl in the cloak department of a store is to be analyzed. The board is made up of all the parties at interest—a representative of the management, a representative of all the workers in the store, and a representative of all the salesgirls doing similar work. To this board comes the analysis of this salesgirl's job as it was drawn up by the scientific research department of the store. This board, which in industry we call a determining board, first decides, on the basis of the scientific information before it, whether the job has been fully and properly described. Remember that the representative of the workers is on this board, and that the act of reaching continually to the racks for heavy cloaks puts a special strain upon the workers, which, if not properly guarded against, may express itself in occupational neurosis. If the board decides

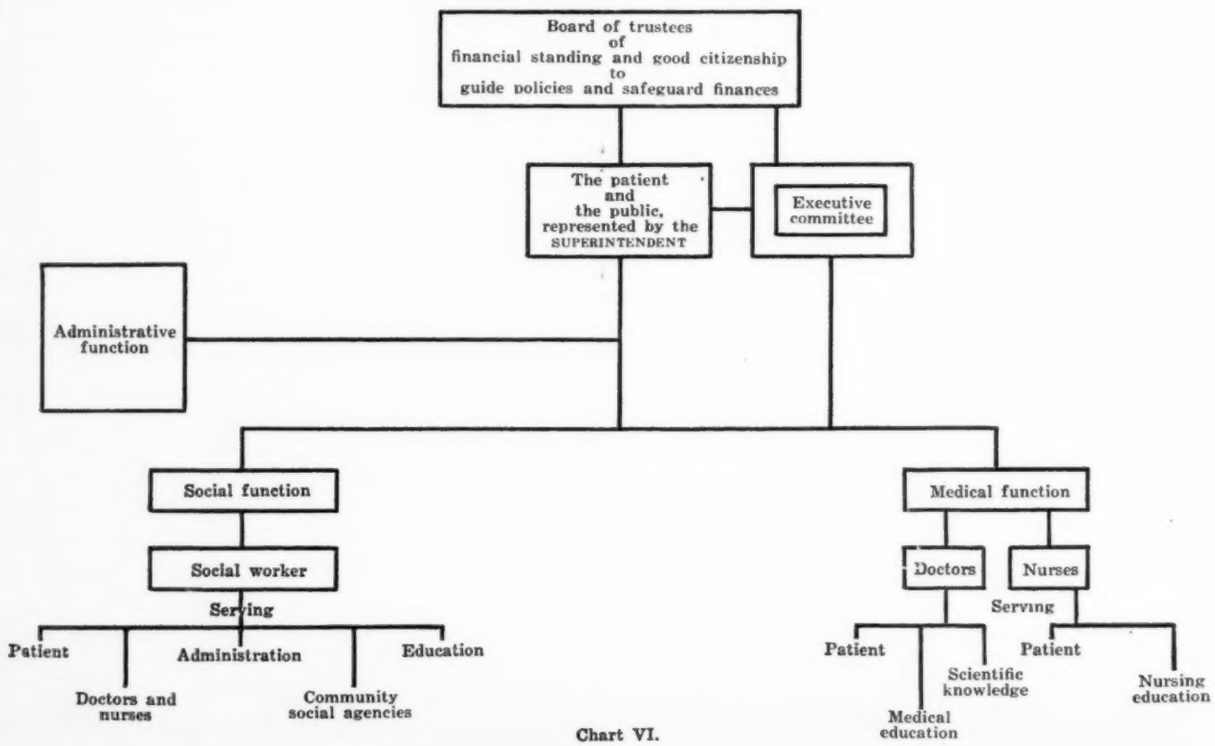


Chart VI.

that the work has been fully analyzed, this analysis then becomes the standard description for that work. The finding so made would then go to another department of the store, where all the salesgirls on this particular class of work would be rated against the agreed standard for that job. These ratings would, in turn, be sent back to the determining board for its O. K., and, if O. K.'d by them, would then become the efficiency ratings of these salesgirls. It will thus be seen that the process of determining a standard is clearly separated from the process of marking each girl by that standard. Each determination is arrived at by representatives of the people concerned and on the basis of the best available scientific information. The possession of these facts and this method of procedure make it essential that the determining board—namely, the representative body—should have the final say rather than the experts of the research department. We find in industry what I believe you may well find in hospital service—that, by this relationship between scientific fact and human representation of the parties in interest, efficiency and consent, or science and democracy, are continually revitalizing each other. They are always making science more scientific, both through its own advance and through the solid foundation it builds to insure its widest, uninterrupted, and ever more and more progressive use. It may seem that I am undervaluing the importance of science—I am not. I am merely keeping in mind that the true scientist is not the man who knows, but the man who is always questioning. The minute a man knows he merely becomes a propagandist for a stage of development instead of for development itself.

VI. THE EXECUTIVE BOARD

If we are, therefore, to build up the executive board of a hospital (chart VI) in the soundest known manner, we must develop it out of a board which we would call the organization board. That organization board would contain a separate human representative for every one of the elements of hospital service, as shown on chart V. After the organization board has thoroughly studied all the jobs in the hospital, the executive board may be made up of a smaller number of men. As we have seen, a prime duty of the executive board is to have prepared and kept current a description of every element of service in the hospital and of every job under each element. The executive board will thus have before it all the time the best scientific information on which to exercise its representative capacity. The director, as chairman or secretary of the executive board, will find himself increasingly in possession, on a democratic basis, of knowledge and power such as an autocrat at his zenith ever wields; and because of the equal rank of the social and scientific functions, the good of the patient will become and remain the goal, as it should be, of hospital service.

VII. CONCLUSIONS

I have tried to analyze some possible applications to a hospital of the general principles of organization, and the tentative conclusions appear:

First. That the hospital should get itself down in writing—its purpose, its policies, its functions, and all its work. It was in the hope of suggesting one line along which this description could be effectively done that this paper was prepared. If anyone of you now cannot better my analysis a lot, you are not alive. The moment you start, you will see how you can, for nothing is so unsettling to our customary notions as job analysis.

Second. You cannot have efficiency in a hospital unless you work out some intensively organized form of representative government which shall include every element of hospital service.

Third. You must tie up this representative government to scientific research work dealing with job analysis, for otherwise you will have neither efficiency nor democracy; or, to put it in the most complex and paradoxical form I can, unless you have both efficiency and democracy, you will have neither.

Finally, we must guard, above all else, from making a fetish of the forms of organization. The application of the latest developments of the science and art of organization should be a matter of course in anything so vital to the world's progress as the hospital. It should be remembered, however, that organization is not a rigid or mechanical thing, but a flexible and living thing. It is, in essence, only men and women in living, pulsating, growing relationships to knowledge, to skill, and to each other. No one can afford to feel that he can settle into routine, or that he can arrange his duties like pawns. In a true organization every member is living on adventurous frontiers. In the laboratories all senses and minds are straining into the dark for light, and at the side of the patient the doctor and nurse and hospital social worker fight battles that demand the highest powers of human beings at utmost stretch, whether the great game be to win a few more heart beats until a crisis be passed, or, patiently and without relaxation, to follow a minute routine through long, monotonous days.

One of the largest hospitals of its times was founded by Bishop Masona in Merida, Spain, about the year 580.

The MODERN HOSPITAL

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Under domestic postage, $3.00; foreign postage, $3.50 (14 Shillings). Single copies 35 cents.

Domestic rates include United States, Cuba, Mexico, Porto Rico, Canal Zone, Hawaii and Philippines.

Contributors, subscribers, and readers will find important information on advertising page 34.

A Shortsighted Policy on the Part of Hospital Trustees and Hospital Superintendents

The purpose of the American Hospital Association is the promotion of economy and efficiency in hospital management. There are over 7,000 hospitals and allied institutions in the United States and Canada, all of which are struggling constantly to make revenue cover expenses and to increase efficiency. Why is it, then, that less than 1,000 of these institutions are represented in the American Hospital Association?

There is not a trustee, superintendent, physician, surgeon, or superintendent of nurses connected with any hospital who would not derive benefit from membership in the Hospital Association and attendance on its meetings. It matters not whether the institution be a hospital for the insane, a tuberculosis sanatorium, or a general hospital—there are many problems in common.

Trustees are, for the most part, busy men, with other chief interests. The physicians, surgeons, and superintendents of nurses have their own societies, which mean more to them than membership in the American Hospital Association. Therefore, those mostly concerned should be the superintendents.

Every man or woman at the head of an institution owes it to himself and to his position that he keep himself as well informed and as efficient as possible. One of the best ways to do this is to meet now and then with others who are engaged in similar work, to listen to discussions by those who are able to present the best thought of the time on the various phases of institutional work, to discuss with others individual problems, to answer as well as to ask questions—all of which tends to broaden one's viewpoint and sometimes to make one less discouraged, or perhaps less assured. At least it enables one to value oneself and one's work more accurately.

Membership in the American Hospital Association and attendance on its meetings offers just that opportunity, and yet the vast majority of hospital superintendents are not members. There are apparently many who do not feel the need of a broader point of view, or of knowing what is going on outside their own little worlds. Such a policy is narrow and shortsighted.

There are many, however, who want to know what others are doing, who want the opportunity of learning how others are dealing with the many problems which are so perplexing, but they do not feel that they can afford the time if it is to be counted against their vacations, which they need so much to keep them fit for their work. This is where hospital trustees are shortsighted. They should expect—indeed, they should insist—that their superintendent be a member of the recognized hospital association and attend its meetings, or that some representative of the hospital should do so. They should consider that the small sum spent to send him to such meetings is a good investment, as it undoubtedly is.

Doubtless many trustees have never thought about this matter and naturally the superintendent hesitates to speak of it. It is hoped that many trustees will read this and act accordingly. It is also hoped that many superintendents may be stimulated to the realization that there is still something to learn, or that perhaps they have something to give to others in the interests of hospital progress.

Let this also be an appeal to the members of the American Hospital Association. You know how you have benefited; then pass the word along. Every member is asked to make a special effort to bring in one new member. Let us try to make the association more representative in order that we may all get a wider knowledge of what is going on in our field of endeavor, and that, by its larger membership, our association may contribute more generally to hospital progress.

WINFORD SMITH,
President American Hospital Association.

Concentration of Health Agencies

Someone has recently said that the most insidiously hurtful thing in the social life of our time is what we generally know by the name of charity. It is very certain that a great many of us find pleasure in rolling the smooth-sounding word off our tongues; we salve our conscience with what we call doing charity, and too often we attempt to buy our place in the world by doing what we sometimes even make ourselves believe is charity. But there is an immense amount of humbug and hypocrisy about it all, and very often by the time it reaches its beneficiary the mask is off and it shows itself in its true light—namely, a species of self-praise and boasting, and only another form of self-advertising.

Some day this is all going to stop; there will be no charity—in the sense of giving somebody something for nothing—and what will be recognized as mere human justice, mutual obligation, will take its place. Socialism must go at least that far. When that time comes, and it seems to us not so far off, individuals will not think of going into their own pockets for pennies to feed a hungry child or to relieve an old and helpless man who has been overtaken by misfortune; they will bring the case to the attention of the constituted agencies of the public charged with such matters.

We are doing more in this direction even now than a first glance would indicate; we refer to the municipal farms that have been created in some of the cities. The largest and most highly developed of these is the Cooley Farm of Cleveland, Ohio, a farm of 2,000 acres, housing at the present time all the city's indigent aged, most of the tuberculous, the convalescents from the city hospital, and the petty offenders, who elsewhere are in the "Bridewells," "workhouses," and "chain-gangs." Philadelphia has its Bybury Farm of 1,100 acres fifteen miles out of the city, a very beautifully rolling country, where anyone could be happy. Milwaukee has its Wauwatosa of 1,000 acres just on the outskirts of the city, on which are all the city's so-called eleemosynary institutions, a general hospital, a tuberculosis institution, an orphans' home, a home for the aged, and an insane hospital.

Milwaukee has made some very rapid strides in its public health service recently, and bids fair to make vast progress in the next few years. It is this Milwaukee situation that is the inspiration for this writing. Up to a year ago there were seven distinct boards of trustees, each absolutely independent of all the others, and each one in charge of one of the above-mentioned institutions. In addition, there was the city health department, charged with the sanitation of the city and the hygiene of the people.

But the health department, while responsible for the down-and-out that happened to fall in the street, the accidents, and those particular cases of squalor and misery that need immediate relief, had no control whatever over the institutions whose services might be requisitioned for this relief, and no one of the institutions needed to concern itself about anything excepting its own narrow sphere. As a matter of fact, it was the routine practice of these several hospitals to decline cooperation with all the others, so that if an insane case, for instance, developed in the city hospital, it became almost impossible to get the patient into the only institution that could take proper care of him.

Each of the institutions had its own purchasing agency, and a steward's department that might easily have bought supplies for all the institutions served only the one. As a result Milwaukee's public health agencies cost the city $750,000 annually, and there were so many hindrances to efficiency that more than 50 percent of the necessary work was left undone on account of its great cost, and what was done was prohibitive in price.

A year ago a bill was presented to the Wisconsin Legislature to concentrate all these health activities under a single commission of three, all-time salaried members, who were to be paid enough to attract men of high capacity. The bill passed, and on October 1 last went into effect, with the first commissioners in office. It makes no difference how the commission is getting along with its work—the whole scheme is new, politics must undoubtedly be served in the beginning, and the commissioners will have to learn their lesson; but the principle is correct and will succeed, and this same principle of concentrated, homogeneous effort must be practiced in every American municipality before the greatest amount of public health work can be accomplished with the least overlapping, and consequently with the least expenditure of time and money.

In Milwaukee now no case could come up that could not be instantly and efficiently handled. Any sort of sick person can be sent at once to that particular institution best fitted to meet his needs, and any case can be instantly transferred from one to another institution; and, best of all, the health department, also under the commission, can have a perfect freedom of action in relieving distress and doing the right thing in all cases, which under the old system was impossible.

Our New Department of Dietetics

With this number of THE MODERN HOSPITAL begins a department of Dietetics, which is to be conducted by Miss Lulu Graves, dietitian Lakeside Hospital, Cleveland.

Miss Graves will not have to be introduced to the readers of THE MODERN HOSPITAL. Most of us have followed carefully a recent course of papers which she gave us on "Feeding the Hospital." These papers were so popular and attracted so much attention, and reprints of them were called for to such a great extent, that the whole series is now in course of preparation by THE MODERN HOSPITAL and will be issued presently in book form.

The feeding of the sick has been a science now for some years, and it is one of the most intricate and useful forms of therapy. Special feeding has almost taken the place of drug therapy, and its importance cannot be overestimated. It is Miss Graves' intention, in the conduct of this new department, to keep before the hospital people, and especially the dietitians in the institutions, the best practice in dietetics, methods and means by which medical orders can be effectively carried out for the feeding of the sick, and a large part of her work will appertain to the business of the kitchen, the purchase, selection, preparation, and the various combinations of food to meet scientific medical requirements.

It is not the purpose of THE MODERN HOSPITAL in inaugurating this new department to enter the lists as a knight errant in the stirring field of food exploitation, but rather is it the purpose to try to help the dietitians in our hospitals, and hospital administrators themselves, to get a better view of the principles of the modern feeding of the sick; and at the same time it is the purpose to try to acquaint members of medical staffs with the physical limitations in the hospital and help them visualize conditions there, so that they may get the largest amount of usefulness from their institutions for the benefit of their patients.

It will hardly be possible for THE MODERN HOSPITAL to accept responsibility for a department of such importance as this without also accepting responsibility, in a measure at least, for various food commodities that are marketed to the hospitals and allied institutions; but we have already been seriously engaged in this field through the medium of the papers that have been prepared by Mr. John Phillips Street and published from month to month. These papers have already received the highest commendation, and that they have made a deep impression where they will do the most good goes without saying.

The installation of a department of Dietetics comes now on the heels of and in response to the demand for a better, clearer, and saner knowledge of food problems in our institutions, stimulated by the writings of Mr. Street and the series of papers by Miss Graves.

We bespeak for Miss Graves the greatest possible encouragement in her difficult task; it is to be a difficult task, and one fraught with perplexities —thankless, as all pioneer work is thankless—and we certainly hope that Miss Graves will have the cooperation of dietitians, administrators, trustees, medical staff members, and nurses who are interested in the problems that she will try very hard to help solve.

Dr. George Howard Malcolm Rowe

Dr. Rowe died at his home, 11 Ivy street, Boston, on January 30, 1916, aged 75 years.

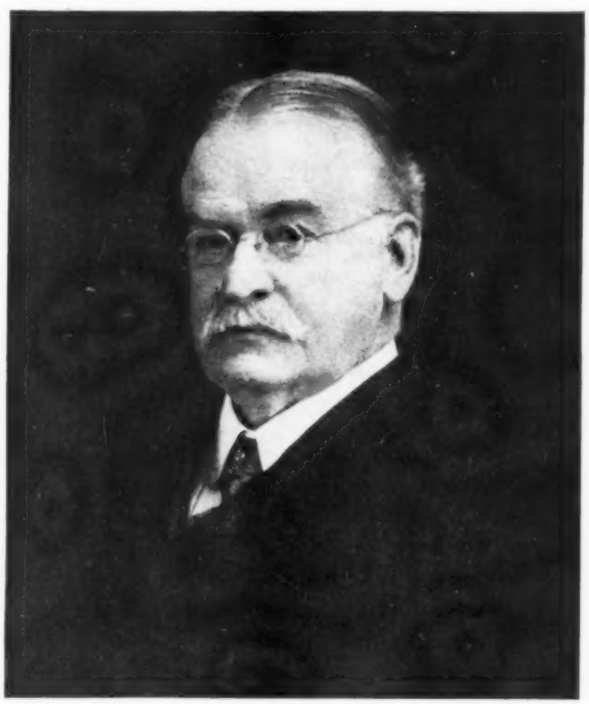
He was born in Lowell, Mass., February 1, 1841, of excellent English-Scotch ancestry. He received his preparatory education at Berwick and Phillips-Exeter academies. Dartmouth College conferred on him the degree of A. B. in 1864 and A. M. in 1867. He was graduated by the Harvard Medical School in 1869. His clinical work was almost entirely in connection with the insane, although his first position was the superintendency of the Massachusetts School for the Feebleminded. This position he left in 1870 to become the assistant physician at the Pennsylvania Hospital for the Insane. Later he was assistant physician at the Hartford Retreat, and thence he went to the Boston Lunatic Hospital as assistant physician and assistant superintendent. He was just ripening for a great work among the insane of Massachusetts when he was called to the superintendency of the Boston City Hospital in 1879 by the resignation of Dr. Edward Cowles, who took the superintendency of the McLean Hospital. He remained at the Boston City Hospital until 1908, when he resigned because of failing health. He was never married.

One can hardly think of the Boston City Hospital without thinking of Dr. Rowe. Three-quarters of it, as it stands today, was constructed under his superintendency, and very largely under his personal direction. Among the multitude of additions and alterations, mention may be made of the following: South Department (seven buildings) for contagious diseases; the Burnham Memorial Building; Relief Stations in Haymarket Square and in East Boston; three homes for nurses; pathological building, with mortuary and chapel; new surgical buildings, with operating rooms; new amphitheater; medical library building; convalescent home; x-ray department; out-

patient buildings; power house; ambulance station, and many others.

The South Department shows what Dr. Rowe could have done in building a new hospital from the start; the present-day amphitheaters and operating departments show what he could do in adapting the new to the old; but his ability as an organizer and administrator was never better shown than by his services in organizing the tent ward for the soldiers during the Spanish War. Here was a complete hospital in itself, formed on a few days' notice and organized without overlooking a single detail.

As a hospital superintendent he was an investigator. Nothing concerning the construction of hospital buildings escaped his notice. His contributions to the literature of hospital administration are marked by a high degree of excellence. It is hard to imagine a better exposition of the function of the trustees and the superintendent of a hospital than that given in his "Observations on Hospital Organization," presented at the fourth annual meeting of the National Association of Hospital Superintendents at Philadelphia, October 14, 1902.



DR. GEORGE HOWARD MALCOLM ROWE.

In 1911 he was placed on the retired list of fellows of the Massachusetts Medical Society, having been a councillor from 1895 to 1909.

He was a fellow of the American Medical Association a member of the American Health Association, the Boston Society for Medical Improvement, and the American Medico-Psychological Association. He was at one time president of the Association of Hospital Superintendents of the United States and Canada. He was a member of St. Botolph, University, Eastern Yacht, and Beacon clubs.

He was of great assistance to the young superintendents in the surrounding cities. A letter written to him on any subject in connection with hospital management brought forth a surprisingly rounded out thesis on the subject.

Of late years Dr. Rowe has been much missed by the Round Table Hospital Club, a dining club of hospital superintendents, sometimes called Dr. Rowe's Round Table. He was the principal mover in the formation of it, and was its guiding spirit until he retired from duty at the Boston City Hospital. He was a man of wide culture, fond of music, a good organist, and was well versed in the best literature of the day.

On his resignation at the close of his service, the trustees of the Boston City Hospital, in their public acknowledgment to him, said:

"After thirty years of faithful, continuous service you have the consciousness of having achieved that high standard of efficiency which places you in the front ranks of hospital superintendents in this country."

This statement says too little rather than too much. Much might be said of his private benevolences, but he never mentioned them himself, and we respect his reticence. H. B. HOWARD.

Hospital Lessons of the War

The United States navy has just issued a report, made by Surgeon A. M. Fauntleroy, on the "Medico-Military Aspects of the European War."

This report is an epoch-making document; it is not only an intimate analytical treatise on medical, surgical, and hospital progress, as exemplified in the European war, but it represents a piece of enterprise on the part of the medical organization of our navy that cannot be too highly commended.

Nearly every war within the past hundred years has marked an epoch in medical and hospital practice. Those of us who still remember our history well enough to know about the Crimean War associate that historic epoch with the work of Florence Nightingale in the care of the sick. The great American Civil War of '61-'65 brought new surgical methods, new medical procedure, and new ideals of nursing and care of the sick prominently before the world, and, while Florence Nightingale, one woman, did a vast amount in the Crimea, her service was largely that of a leader and teacher of methods rather than as an exponent of uniform and routine practice, and it was not until our Civil War that the teachings of

Florence Nightingale took on physical form and grew into standards of practice.

Then came the Franco-Prussian War, and a new impetus in hospital service and medical practice, the Russo-Turkish War, the Russo-Japanese War, and the Boer War.

Especially did the Russo-Japanese War mark some definite achievements, notably in surgical practice, the care of infections, the transport of the sick and wounded, the surgery of shell wounds, especially incident to explosive shells. In all these directions were vast strides made during that memorable contest.

But even since the last consequential war, changes have come about of very great moment to humanity, and especially in medical and hospital practice during war; indeed, within the past five years typhoid vaccination has become a standard practice, and the almost criminal fatalities of our own Spanish War can no longer occur; and, perhaps even more momentous, the cause and prevention of typhus have been discovered and have gone into definite practice, notably in the Balkan disturbed area.

Now comes on the greatest war of all history, and it comes at a time when great scientific truths in medicine stand half revealed and still half hidden from view. From time to time, during the progress of the present war, some faint echoes of great scientific events occurring on the battle lines have come to us, but only in fragments and not in such a way as would serve any very constructive purpose. Not only that, but from time to time we have been told that the warring factions had declined to allow American observers to peep behind the scenes and to study methods and processes and practices. We had even been told that the medical services of our governmental departments had been refused passports to the war zone.

And now on the heels of this information comes Dr. Fauntleroy's report. It is a volume of only 150 pages, a large part of which is made up of illustrations; illustrations of methods of transport of the sick and hurt, of apparatus and equipment for hospitals, and for diagnosis and treatment; plates showing individual wounded, the terrible destruction of tissue, and progressive plates of some of the worst of these cases, showing the end results with evidences of repair almost beyond human comprehension; pictures of men whose whole faces have seemingly been torn away and who got well with hardly more than a scar or two. These plates show also splints and dressings for various fractures and various wounds, and, strange as it may seem, and while American surgeons and American physicians occupy numerically so inconspicuous a place in the European war, many, very many, indeed almost all the new devices which Dr. Fauntleroy pictures, are the design of American physicians and surgeons.

As we have said, our Navy Department is entitled to the highest commendation for its energy and enterprise in conceiving and carrying out this piece of work, and in the selection of so thoroughly capable a representative as Dr. Fauntleroy to put it into execution. But it is conceivable that Dr. Fauntleroy's report may not fall into the hands of very many hospital people or of any considerable number of the American medical profession, and, even if it did, it is such a mass of matter that much time would be involved in a study of its various parts.

But there is too much in Dr. Fauntleroy's report that makes it of vital interest and profit to the hospital people for us to pass over the report with a mere mention, and the surgeon-general of the navy, General W. C. Braisted, has been most kind in permitting THE MODERN HOSPITAL to use many of the illustrations that were made for Dr. Fauntleroy's report, and the surgeon-general has kindly consented that an epitome of the report be made for publication in THE MODERN HOSPITAL in three numbers.

The first part of the report, which is published with illustrations in this number, concerns new splints, new apparatus, new dressings, and new methods of treatment of the wounded. There should be some most illuminating lessons in this story, and it ought to be the means of initiating many new practices in American hospitals.

The second story will concern the various methods of transportation of the sick and hurt from the fighting line back to the base at home. This story of transportation is of special moment just now when American hospital workers, administrators and trustees, and staff members are thinking about the transport of our own sick, not for time of war, but in peace, when we are thinking about convalescent homes in the country, when we are thinking about the location of acute disease hospitals far away from the noisy, dusty streams of traffic, where the sick can have the benefit of pure air, sunshine, the green trees and flowers, and good foods, milk, eggs, vegetables. Perhaps the European war has solved that problem for a generation to come. This story will be published in the May number of THE MODERN HOSPITAL.

In the June number there is even still more profitable and instructive a story—namely, that concerned in the equipment of hospitals; some of the illustrations show a small group of transport wagons wandering along the road, and, presto! the next picture shows a hospital built from the contents of these wagons; the electric light plant,

the operating room with all its paraphernalia, the housing for the patients, their laundry and sterilizing apparatus, and one picture even shows a portable shower bath established where a dozen or forty soldiers can be given simultaneously a warm shower bath preparatory to putting them to bed.

A good many of us have sometimes felt that the complexities and the technic of our hospital operations are growing topheavy; indeed the statement has been made to this effect many times in THE MODERN HOSPITAL. Only recently, commenting on the proposal of a member of a surgical staff of a hospital that seven or nine people were required in the performance of a surgical operation, it was stated that perhaps a great war would yet be needed before American surgical procedure could be reclaimed and reestablished back in the simplicity out of which it has wandered so far.

And, then, when we see how little material and how little apparatus and how little housing there need be to care for vast armies, and to care for them in a measure of efficiency never heretofore attained, we wonder if, in spite of the dreadful slaughter, the millions of deaths, and the infinite suffering and distress and heartaches, time shall not prove that the war was worth all it is costing.

Moving Sidewalks and Other Luxuries

In Mr. Davis' department of Dispensary and Out-patient Work this month there is a little article highly facetious in tone on the reception and care of dispensary patients with moving sidewalk appurtenances and other essentials of modern comfort or luxury.

Perhaps the facetiousness of Mr. Davis' contributor would be regarded by some as its only value, but in reality there is food for thought in the article. To what extent are we catering to the comfort, even the necessities, of the sick who visit our dispensaries? How many of us have gone into clinic rooms at odd hours and have seen there great groups of waiting sick people occupying straight benches, with pinched faces, tired, sick-looking bodies, and with an expression of listlessness sufficient to shut out almost every acute sensation?

When are we coming to a time when the sick poor, on their visits to the dispensaries, shall be given the consideration to which sick everywhere else seem to be entitled? Almost no attempt seems to be made to cater to their interests by giving them prompt treatment and allowing them to go home, where they can lie down.

Perhaps Mr. Davis' contributor had nothing else in mind but the entertainment of Mr. Davis' audience, but who shall say how much good this article might do if it should be the means of stimulating study and thought on the part of those interested in dispensary work?

VALUE OF OLEOMARGARINE

British Hospital Authorities to Feed Substitute Butter to Patients While Experts Argue

The Wandsworth Board of Guardians, following the lead of many other public bodies, has decided to supply the patients in their infirmaries and the officials with margarine in place of butter. The board was influenced in its decision by a report from Mr. A. H. Muter, public analyst for Lambeth and Wandsworth, who reported that there was very little difference in the amount of fatty matter and in the assimilability of the two substances. A comparison of the two is complicated by the fact that the word "margarine" is applied to many substances of different composition. As defined by the Margarine Act of 1887, margarine is the name given to "all substances, whether compounds or otherwise, prepared in imitation of butter, and whether mixed with butter or not." Margarine today is made chiefly of vegetable fats, such as cocoanut oil and palm-kernel oil, mixed with separated milk, and artificially colored. The result is a product which, in the case of the best margarines, cannot easily be distinguished, either by the eye or by the palate, from butter. As to its value as food, there is a sharp division among medical authorities. Dr. James Oliver says that vegetable fats are less digestible than milk fat, and that they deprive the body of calcium salts by forming in the intestines calcium soaps, which cannot readily be utilized. Butter is also said to contain phosphorized fats, which margarine does not. On the other hand, Dr. Robert Hutchison asserts that 102 pounds of margarine are equal in nutritive value to 100 pounds of butter, and that it is practically as well absorbed as butter, but there is no deprivation of calcium, because calcium is always in excess in any dietary, and that the amount of phosphorus in butter is negligible. Another objection that has been raised is that, owing to its method of manufacture, there are no vitamines present in margarine, while butter contains them. The advocates of margarine point out, however, that vitamines can easily be supplied in other articles of diet. Most medical men will agree that the opponents of margarine fail to prove the essential superiority of butter, and that, having regard to the greater cheapness of margarine, its substitution for butter in institutions is perfectly justified. The latter statement, however, requires three qualifications—the margarine supplied must be of the best quality, the medical officer must have power to order butter in special cases, and the dietary must be of such a character as to insure the supply of an excess of calcium salts and the presence of vitamines.—The Hospital (London).

Plans drawn by Architects Rose & Peterson, Kansas City, Kas., for the proposed Jasper County (Mo.) Tuberculosis Hospital, for which a $100,000 bond issue has been voted, call for a two-story and basement main structure, 250 by 60 feet, with a rear projecting wing 40 by 50 feet. The construction will be of reinforced concrete, masonry, and tile. On one side of the building there will be two pergolas, with a combined length of 125 feet. The equipment will include portable baths, a laundry with sterilizing apparatus, and a refrigerating plant. The hospital will have a capacity of 126 beds.

SURGICAL DEVICES IN THE WAR

Splints, Irrigating Methods, and Magnet, Reported by Surgeon Fauntleroy of the Navy

Very often when we go visiting a new hospital we see new appliances, new practices, new technic, and we hear glowing accounts of how beautifully it is working out; the superintendent himself will be enthusiastic about it. We make a mental memorandum of the device or method, and when we go home we attempt to put it into practice in our own institutions, only to promptly find that it is wholly impracticable and cannot possibly be worked. A little later we make some inquiry of the hospital in which we originally saw the device or method, and find that there, too, it is out of commission and had evidently proved unworkable.

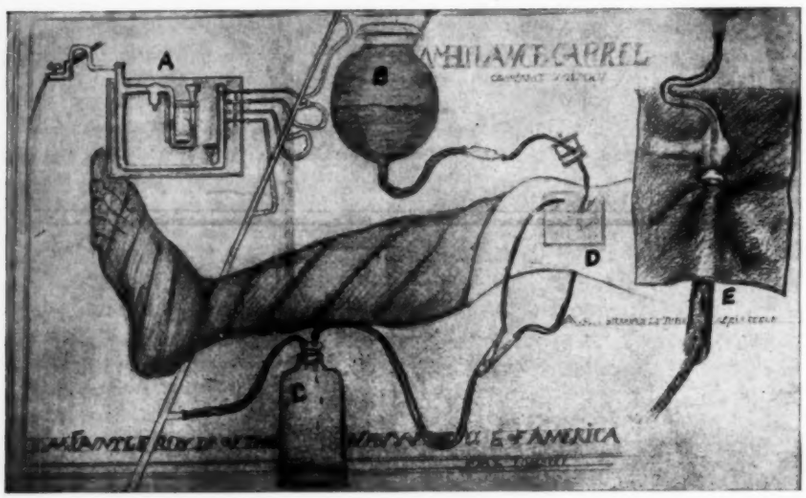


Fig. 1. Combination continuous irrigation and suction apparatus.

Every hospital in the country has a lumber room stored full of unusable, obsolete, impracticable apparatus, stuff that has cost large sums of money and an immense amount of time and ingenuity on the part of doctors or administrative officers; that is what we call hospital junk, and we store it alongside of broken beds, broken screens, and old, unused chairs.

It has been said that not one device out of a hundred that is put into practice in the average hospital works out so that it becomes standardized for general hospital practice. The great trouble with all these things is that they are shown and demonstrated to outsiders and visitors under the most favorable auspices, and are introduced as articles of every-day routine practice when in reality they are only in the first experimental stage. The superintendent who sees such a device in use goes home and copies it and sets it to work, and exhibits it to others with the recommendation that he got it at such and such a place, where it has been in use a long time; and so the unworkable and impracticable things continue, and it is only after long and hard use under exacting conditions, and for the most intensely practical purposes, that a device or a method can finally be determined as a standardized piece of hospital machinery. It is extremely fortunate, therefore, that in the presentation of his report to the United States Navy, and thence to the American medical profession and the American people, Dr. A. M. Fauntleroy, surgeon in the navy, who was sent abroad to make observations and report on the medico-military practices incident to the European war, was able to bring back some eminently practical things.

In connection with this article are some illustrations of splints and other apparatus, instruments and devices for the treatment of the sick and wounded, that are now being employed on the battlefields of Europe, and that have come into standardized practice because they are meeting a demand for the service of the sick and hurt where hundreds of thousands of men are passing through the hospitals. These things that Dr. Fauntleroy reports on have ceased to be experiments; they have been accepted for the extreme purposes of war, and consequently have been found to be convenient, economical as to time and energy, and have actually and practically served the purposes for which they were designed.

The illustrations almost tell their own story, with the legends accompanying them, and almost nothing further need be said to illuminate the instructive and impressive report that Dr. Fauntleroy has made, which would have been complete if only the illustrations themselves were used, and even if there had not been a word of the brilliant running account of what Dr. Fauntleroy saw in Europe concerning the medico-military usages in the war.

There are a few things, however, to which attention might be called. One of these is illustrated by Dr. Fauntleroy in Fig. 1, a combination continuous irrigation and suction apparatus which is in constant use in Dr. Carrel's

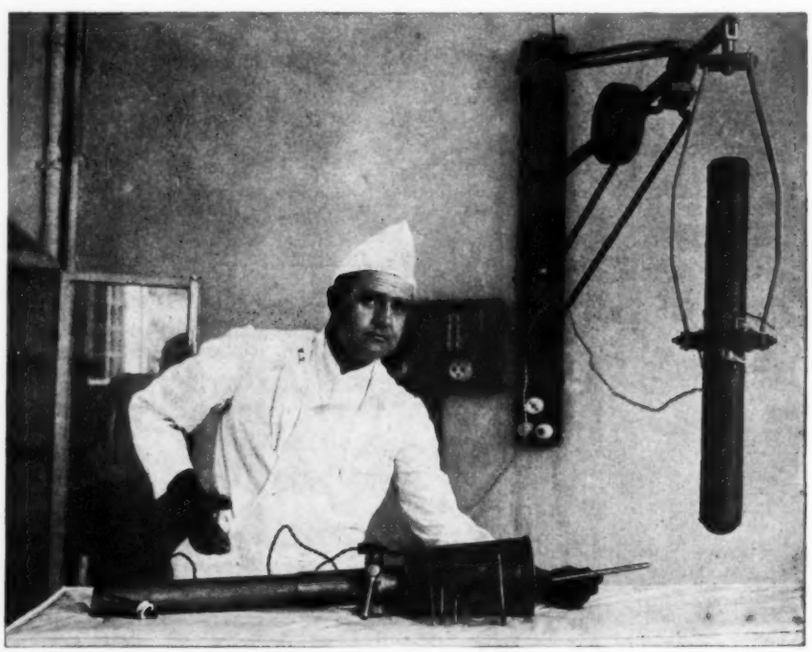


Fig. 2. Electric vibrator and magnet.

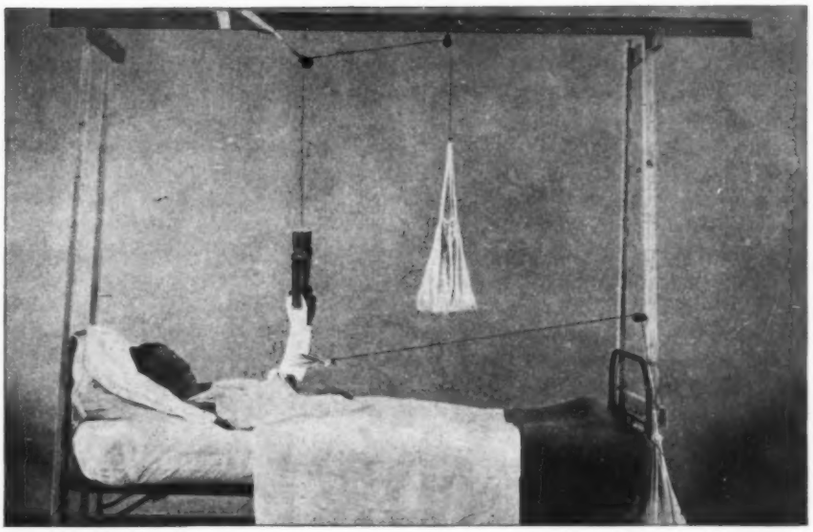


Fig. 3. Suspension apparatus for fractures and wounds.

hospital at Compiegne. This apparatus is used more particularly in the sterilization of certain perforating wounds of the extremities. The general principle of the apparatus is along the lines of through and through drainage, as Dr. Fauntleroy says, with the antiseptic entering by one drain and being withdrawn, with the septic wound secretions, by continuous suction applied to the other drain, which is placed dependently. In practice, Dr. Fauntleroy says the apparatus has developed certain manifest advantages; after it has been correctly applied, the wound does not have to be dressed again until the infection has cleared up, which is an important point. As carried out at the Carrel hospital, the wounds of entrance and exit are enlarged only sufficiently to remove any foreign material and to admit introduction of the two fenestrated drainage tubes into the depth of the wound; the wound around each tube is then completely sealed by rubber tissue glued with collodion; a thin layer of gauze is also glued with collodion over the rubber tissue to the skin, so as to reinforce the rubber tissue in sealing the wound. One of the drainage tubes is connected to a Murphy drip apparatus, while the other tube is connected by a long piece of rubber tubing to a large aspirating bottle underneath the bed. This bottle is continuously exhausted of its air on the same principle as the vacuum bottle in aspirating the chest by means of a special water suction apparatus operating perhaps at a distance.

Another piece of apparatus which has been standardized in the course of this war is the electric vibrator and magnet (Fig. 2). This apparatus was perfected by Professor Bergonie, of Bordeaux, and is not in practical use on the battle fronts. The vibrator, which is shown attached to the swinging wall bracket, is used to locate pieces of steel in the tissues during the course of an operation; one end of the vibrator is protected by a sterile towel and brought to within half an inch of the skin surface and the current is turned on; the operator's finger is held between the end of the vibrator and the skin; if steel is present in the tissues, it causes a well-marked vibration in the metal, and this vibration is imparted to the surgeon's finger, which is palpating the skin. The nearer the surface, the greater the vibration in the metal, and as the end of the vibrator is moved to or from the metal the vibrations increase or diminish, as the case may be. This vibrator produces no effect of shrapnel balls, which are made of lead, but it has been found extremely useful in determining the pressure of or locating a piece of shell or jacketed bullet where the x-ray picture is not clear. The magnet, which is provided with suitable steel tips, is especially applicable for extracting small pieces of metal, except lead, from certain inaccessible parts of the body, such as the brain, neck, or chest; in these localities it would require a formidable operation to remove the metal by incision and dissection. In case a piece of metal is located at one of these sites by the x-ray, the patient is anesthetized in the x-ray room, and there, with the aid of the fluoroscope, the operator can introduce one of the various steel tips, which has been previously sterilized, into the original wound until it can be seen to touch the piece of metal; when the operator is satisfied that the steel tip is touching the metal, the patient is wheeled into the operating room with the steel tip carefully held in position, and the electromagnet is swung over the steel tip until it touches the latter. The current is then turned on, and this, of course, converts the steel tip into a strong magnet. The tip then being gently withdrawn, the foreign body comes with it. As shrapnel is very seldom used at the present time, Dr. Fauntleroy suggests this vibrator or magnet can be used practically for all pieces of projectile in wounds except a lead bullet which has lost its steel jacket.



Fig. 4. Ambulant splint.

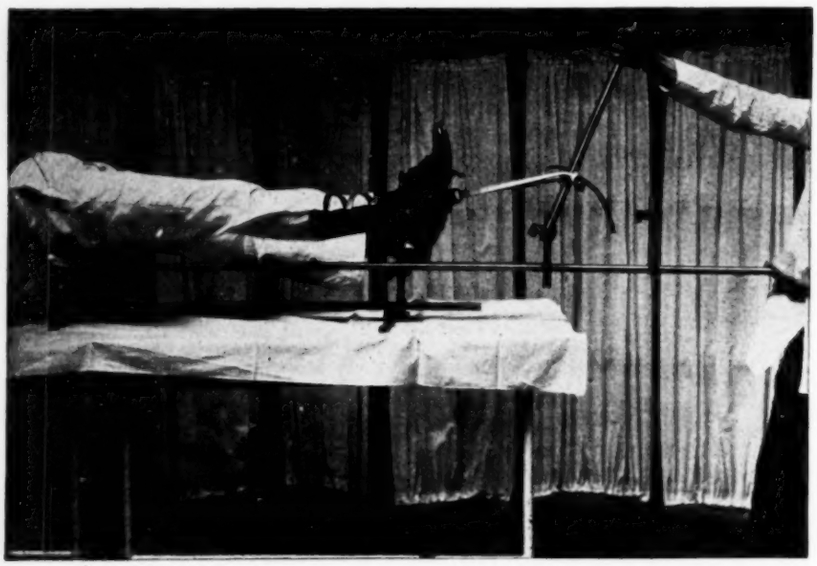


Fig. 5. Extension apparatus.

Obviously this apparatus in a general hospital would be most useful.

Another most interesting point in Dr. Fauntleroy's report, which, however, is not amenable to illustration, is that of the new disinfectant devised by Dr. H. D. Dakin, of the Herter Laboratory, New York city. Before he succeeded in finding a practical disinfectant for battle field purposes, Dr. Dakin had compounded for trial and comparison 130 different chemical antiseptic combinations. The one which was finally successful, and which has been adopted as the superior antiseptic of the war, is described by Dr. Fauntleroy as follows:

Dissolve in a large bottle 140 grams of dry carbonate of soda with 10 liters of sterile water; add to this 200 grams of chlorid of lime and shake well; after half an hour syphon off the clear fluid into another bottle through a cotton plug or filter paper, and then add 40 grams of boric acid to the clear filtrate; this solution is neutral to litmus, is nonirritating, and is the proper strength for wet dressings and irrigations. A stronger stock solution of 4 percent may be made, but the quantity of boric acid to be added must be determined exactly, so that the solution is just acid to phenolphthalein suspended in water; otherwise the solution decomposes rapidly. The solution should be made fresh every three or four days, and the dry stock ingredients should be kept in covered receptacles. Dr. Fauntleroy suggests that, besides its proved efficiency, this disinfectant can be made up, even in small amounts, at a cost of only about 5 cents for 10 liters.

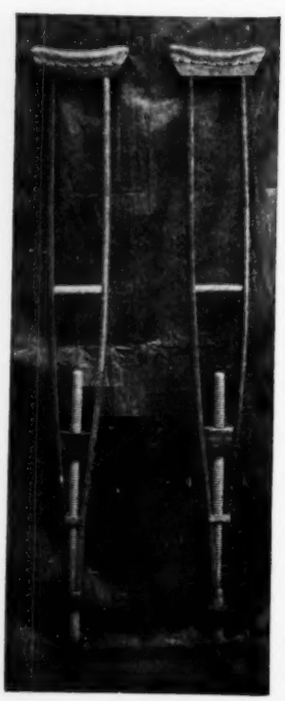


Fig. 7. Adjustable crutch.

Since the time of the Hodgen thigh fracture splint, devised by the late Dr. John T. Hodgen, of St. Louis, about 1880, the continued suspension of fractured members has been accepted surgical practice, but the various devices for suspension have always given an immense amount of trouble in hospitals. The practice of using suspension apparatus has never been popular in some institutions, and even some well-known surgeons do not employ suspension apparatus in their cases, avowedly for the reason that they cannot get proper cooperation in their hospitals. But this war has developed that suspension apparatus is not only practical, but necessary, where a large quantity of routine work is to be done. Fig. 3 shows one of these suspension devices in operation for treatment of a fracture at the middle third of the humerus. Dr. Fauntleroy shows a large number of these suspension devices employed in various fractures and wounds.

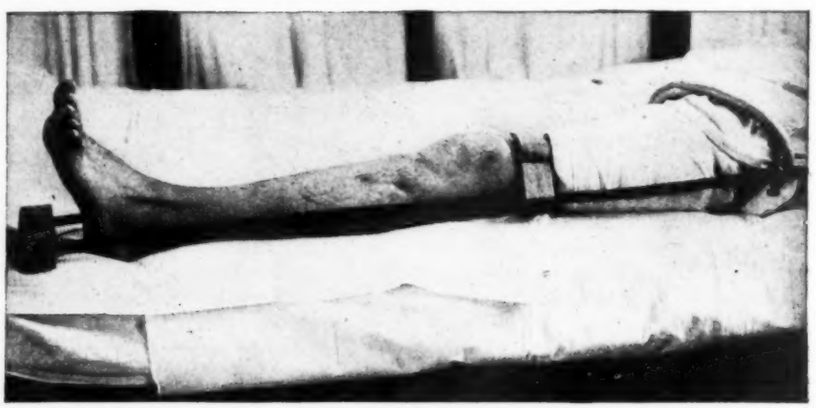


Fig. 6. Ambulant leg splint.

Not unlike the suspension apparatus in principle is an ambulant splint shown in Fig. 4 and devised by one of the surgeons connected with the Harvard unit. This ambulant splint permits patients to walk about even from the first, so that they may regain their strength while the wound is healing.

American hospitals have been hard put to it many times for an apparatus to employ extension during the process of putting on casts, especially in fractures of the thigh and leg. Fig. 5 shows a device of this sort, and the report states that it is eminently satisfactory, quite simple, and is in common use.

Another device which is made to take the place of plaster casts in some cases is shown in Fig. 6, the Thomas ambulant leg splint, the metal parts of which are made to take the weight of the body so that the fractured part can have complete rest even while the patient is going about.

A device worthy of special attention is the German adjustable crutch shown in Fig. 7. This crutch can be accommodated to a tall or short person, and can also be accommodated to the early stages of convalescence, or to a later stage when the patient is entirely well, and the full length of crutch can be substituted for a shorter device.

THE SOUL OF BATTLE CREEK[1]

The Famous Institution Preaches a Gospel of Right Living —Food Only Part of the Creed

So few of us form our opinions on the facts which we observe for ourselves that we lose confidence in our own judgment. The world's progress has always been retarded by our fear of being mistaken and laughed at. The prejudice which enslaves the average man's judgment is not necessarily wicked or intentional, but it is none the less real, so that it is too true that "a prophet is not without honor save in his own country." Galileo faced it when he launched his protest against a flat earth, Harvey when he taught the circulation of the blood, Lister when he showed the value of antiseptics, Jenner when he pleaded for vaccination, Morton and Simpson were bitterly attacked when they conferred the inestimable gift of anesthesia on the human race, Fulton was maligned for claiming that ships would one day be driven by steam. The slogan of "safety first" forced now on one's notice at every turn, seems silly, in the first place, as being unnecessary, but it has come to stay, and the slogan of "health first" also, as the pure food acts, the factory acts, and the laws against spitting attest.

It has been my lot in life to live alternately among the very poor and the very rich. I have many times seen starvation from inability to obtain food, and I expect to see again the starveling mother and babe, the brilliant, deep-sunk eye, the wasted and enfeebled frame of the bread-winner, hopeless and helpless. I have seen the starvation due to ignorance, the black leg, the swollen limbs and bleeding mouths of people dying of scurvy, with vegetable salts procurable right alongside of them—their value all unknown. Hundreds of times I have seen young and old suffering the agonies of beri-beri and its subsequent paralysis, though the cause was of their own making, and the cure in their own hands. In these cases the facts are simple, and the deductions leave no room for prejudice.

When, however, one returns to civilization, and faces the modern menu cards side by side with the new health propaganda, one merely wonders how any protest can possibly be taken amiss. The newly arrived Westerner, who for the first time faced an up-to-date hotel or Pullman car menu, is reported to have more than eloquently sized up the situation by saying, "Just fetch me fifty dollars' worth."

After my first ride on the top of a bus down Fifth avenue, my observations of the dresses which were the last word of the fashions of the great city left me at first with a sympathetic feeling akin to that which I had felt for the involuntary infraction of nature's food laws which had faced us in Labrador, for combined with the humor of it there was such a strong element of pathos—especially in a country protesting against the shoes of Chinese women. No doubt the ancient provisions and traditions of English schools and universities leave them open, as are so many human things, to criticism; but of late years even France and Germany have been testifying by the very strenuous efforts to emulate them that the emphasis on *mens sano in corpore sano* is a fundamental of the Englishman's faith. The ideal of the Anglo-Saxon youth is the physically fit man.

Most willingly I concede that in the battle with intoxicants America occupies an entirely admirable position. She has also coined a new word in honor of a citizen who *chews* his food. The law of demand and supply has conferred on her none too soon the unique protest of a Billy Muldoon, to rival in the "field" of overeating the achievement of yet another and more famous "Billy" in the "field" of fight against drink. Charles Dudley Warner propounded the conundrum, "How can a family possibly be respectably raised around a hole in the floor called a register?"

But it is a far more serious question, "How can a family be raised self-mastered around the temptation of modern meals?" For grim memories, such as the fat of Rome, rise specter-like to haunt the answerer. America's genius in catering to luxury is to us English on a parallel with much other overemphasis. It has, in physical exercises, undone her very Anglo-Saxon and right appreciation of the great value of sport. No experience in America puzzles the Englishman more than why so many should be contented to look on while so few play the games. I heard a certain well-known college president remark once, "Thank God, golf was invented in Scotland. If we in America had originated it, there would have been no bunkers, and most men would not have ventured to play at all."

Our admiration of the physique of an Apollo will be a real handicap to our cult of mental achievements so long as men's minds are obliged to accept the popular physical ideals of their professors of learning. A preacher, however eloquent, is increasingly discounted if his voice emanates from a self-indulgent physique. The disadvantage of a contemptible presence was realized even by St. Paul. My first visit to a millionaire's club left me a worshiper at the shrine of fitness, sincerely sorrowing for the "poverty" of the rich, more than ever appreciative of the nomenclature which classes an affliction largely on the increase under the head of "nervous prosperity," and ready to acquit of any Don Quixoteism even a president who went out of his way to pay honor to an apostle of the simple life.

The parable of the rich man and the needle's eye is neither new nor any easier of solution apparently than it was when first propounded.

"What is wrong with America?" is so often heard as a popular saw. No doubt plenty of young Romans, even in the last days of the Empire, yelled back, "She's all right." The English medical man is a Pharisee of the Pharisees in orthodoxy. The recognition of more than one school of healing suggests to the English mind only governments capable of attributing Tammany ideals to the noblest of professions. The first voyage of the Mayflower was the classic protest against wealth rule and wealth worship, no less than against soul-damning conventionalism.

Some years ago, while in Chicago, I received an invitation to visit and inspect the methods of the best-known simple food protest in America, known to the public as the Battle Creek Sanitarium. With an inbred hatred of cant and quackery, and thinking that the institution might be merely a means of advertising patent foods and a new sect called Seventh Day Adventism, I at first respectfully declined. Later, however, I decided to go, feeling that there must be some germ of good in a system which had produced such wonderful physical improvement in some of my personal acquaintances.

On the train a short, wiry, keen-looking man was introduced to me as Dr. Kellogg, superintendent of the sanitarium. Though well over 50, he had not a wrinkle in his skin, and was evidently, in English parlance, "as fit as a fiddler"—by no means the Stiggins, or medicine fakir, which prejudice had pictured him. When I turned in to

[1]This paper is published by special request of Dr. Wilfred Grenfell, who has been a frequent contributor to the pages of THE MODERN HOSPITAL.

sleep he was dictating to a secretary, and when I turned out again in the morning he was still dictating, presumably to another secretary. "Don't you ever sleep?" I ventured to ask. "Oh, yes, when I need it," was the cheerful reply. I have to admit since that his answer reflected the spirit of his teaching very truly. Eat when you are hungry and not because you are asked, or for convention's sake, is a fundamental maxim in his attack on food intoxication. Treating in drinks is today illegal in some districts. Treating in unnecessary and intoxicating foods is far from being considered hospitality at Battle Creek.

Every prophet or protestor makes enemies. I am inclined to believe that every successful protestor ought to expect and also be prepared to put an overemphasis into his message. Unconventionalism is looked at as much askance and treated as badly by the physician as by the theologian, or by the British matron. G. K. Chesterton's book, "Man Alive," was not written before it was needed. The assertion that a surgeon has no right to invent breakfast foods is almost a cardinal canon of medical lore. But the fact that Battle Creek food products have come as a benefactor to many digestions, and that Dr. Kellogg, so far as I know, has not any personal financial interest in the sale of any patents, has not yet altogether modified the offense in inventing them.

The Chinese pharmacopeia has forty volumes—that of the famous Massachusetts General Hospital only a few pages. Perhaps the most famous heart doctor in England has declared that the most notable virtue of so universally used a drug as digitalis lies in the fact that we doctors can scarcely give enough to do any harm; yet the declaration by Battle Creek that it dispenses almost entirely with all drugs is regarded with no little suspicion. Purely defensive culture is only just beginning to displace unpopular, offensive, "kultur;" yet what great abuse and cruel imposition has the freedom of America permitted to be perpetrated on her unfortunate people in the shameful patent medicine traffic. Even in Labrador our poor folk are robbed by the harpies who prey on the fears of ignorant humanity with such things as electric belts or swindling "cure-alls." On the small farms of the West even the unprotesting chickens and pathetic cattle have to swallow tonics and restoratives to make easy fortunes for unscrupulous vendors.

When I learned that the real name of the Battle Creek Sanitarium was the Michigan Benevolent Institution, and that it was exempt from taxation by state laws, that its governing body was a guarantee that it brought no money to any individual (a final seal to which fact was put by the unbelievers who brought a tax suit against the governors, which resulted absolutely in favor of the institution on every single count), while the special committee on examination reported, "the revelations made by our investigation have been a surprise to us; not only were we unaware of the wholly philanthropic nature under the law, but we were also unaware of the vast amount of charitable work performed by it and the wonderful sacrifice among its managers and employees; we are deeply convinced by overwhelming proofs of the straightforward management, lofty purpose, and widespread beneficence of the institution, and, above all, the personal devotion and sacrifice of nearly a thousand persons employed in it"—then the first revulsion in its favor occurred in my soul. The second came when I was absolutely convinced that it had no sectarian connection whatever; and the third when I realized that its slogan—whatever the success of its system—was simply, "right living," and that it neither advocated nor sold any panacea or proprietary nostrums whatever. Even if, when it came into existence, any other conditions existed, we have no reason or ground for complaint. Empiricism has preceded rationalism even in medicine. The origin of our own species was attended with very undesirable conditions. America, anyhow, should now be proud of the unique protest which this noble institution is making. It is an improved and successful "Brooks Farm" experiment. I was a proud man at the National Congress of Surgeons of North America when I saw the president and council of the new college of surgeons confer on Dr. Kellogg and his two principal colleagues the hall-mark of the Degree of Fellowship.

The fact is, the profession, as a whole, now recognizes everywhere the need for the unconventional for men like Dr. Richard Cabot, who saw that the social service wing was as vital and essential a factor for a modern hospital as an operating room or a dispensary. "Oh, he's a crank," a man said to me only the other day. "God bless and multiply them," was my reply. Just so the Church needs "cranks" like Elwood Worcester, whose protest that the interests of mind and body are so intimately intertuned that the Church must have a message for both if it is to reach the soul in its apostleship of things spiritual. Men like Bishop Sumner, who instituted the splendid move for eugenics in marriage; like Graham Taylor, of the vice reform movement in Chicago—these are the "men alive" who are simplifying the efforts to uplift humanity, regardless, like the great Master of all reforms, of men's attitude to them. They help us to avoid the burden of the sects and cults that are able to rise and fatten on men's foibles because of the element of unrecognized truth which their first founders fastened on.

The object of Battle Creek is to prevent ill health by teaching right living. But, alas, it has so often to deal with already disabled constitutions that it needs every possible accurate method of diagnosis to know exactly where to begin with each individual. The endeavor to incorporate under one roof every method of precision known to scientific medicine has been one reason for its enormous size. It simply stupefies one to see the small figure in white clothing in front of the huge pile, which one knows is as yet but a tiny part of the outcome of one man's energy and wisdom. Thorough in everything, even the white clothing is to let all available light through to the skin, in pursuance of the sunlight treatment so successfully exhibited by Rollier in Switzerland.

The Battle Creek roentgen ray outfit is as fine as any in the world, and the work of its roentgenologist, Dr. Case, is world famous. The painstaking thoroughness of his technic is unsurpassed in my experience. The work of the institution in heart circulation, aided by the newest and most accurate instruments, has enabled it to add no little to the due and just appreciation of "blood pressure" and its meaning, and the right interpretations of variations from the normal, and the effect of diet on it. The specialist in charge of the work, Dr. Mortensen, is recognized as one of the ablest of diagnosticians. The work in the surgical department needs no indorsement beyond the valuable monographs which have been contributed from time to time by Dr. Kellogg. His work on the ileocecal valve is entirely original, and personally I believe, in conjunction with accurate x-ray work, is destined to do much for the right appreciation of and treatment of ileostasis, and the real meaning of the varieties of kinks and obstructions which have led to the already declining practice of sidetracking the large intestine, so as to prevent the absorption of retained toxins, manifested in arthritis and other common ills of humanity. The first case of Fried-

reich's ataxia recognized in America was reported from Battle Creek.

The profession has no fear, and the public need have none, of the scientific ability of the staff. The purpose of this statement can be estimated only when one remembers the main and stupendous task, the inevitably unpopular task, ahead of the great effort. It is to rescue natural curative agencies from the hands of vampires, to persuade the world to depart from the food habits which it has cultivated and enjoys, to find out the means to make a simpler, cheaper, and less toxic diet possible for the man in the street. No doubt Jack, faring forth even against the giant who holds hodern maidens enslaved to fashions that impoverish their resources and deform their beauties, could not be beset by greater difficulties and dangers.

The first preparations for this warfare have been most efficient dietetic laboratories, and a sufficiently large staff of trained workers to adequately carry out the routine and tedious examinations of intake and output of food which the system rightly calls for in any given case. No more carefully prepared examinations, more laboriously maintained and continuously recorded, are available anywhere; and it has always seemed to me that if money can enable such intricate, individual equations ever to be satisfactorily obtained—such as what each person may and should eat, and how much and when, so as best to insure his living out his full life—it surely will be in Battle Creek, or in some as earnest an offshoot which shall proceed along the lines so carefully laid down and followed there.

It is no small compliment to one man if he had done nothing more than produce the universal dynamometer which has been adopted for anthropometric laboratories by the United States government and all the leading gymnasiums. It is interesting merely to name the laboratories which the institution has considered it essential to establish, and to enable it to give to each comer the information about himself which is priceless if scientifically accurate. These are: chemical laboratory, bacteriological laboratory, and urinary, blood, metabolism, fecal, x-ray, and anthropometric examinations. It believes that the old Greek adage, "know thyself," applies to the body as an adjunct ever to knowledge of the soul.

In the opinion of some, Battle Creek overemphasizes the supreme importance of low proteid diet. A backslider who resorted to importing a cold boiled chicken into his room there, felt hurt to hear it announced in the evening that during the day a guest had been found guilty of eating a dead hen. It is a fixed conviction on the part of those who have had personal practice at Battle Creek that a vegetarian diet is the only sure way to avoid the cultivation in the alimentary tract of those hostile bacteria which form poisons to our downfall. Their opinions have only been strengthened by personal experience in the laboratory of the world.

A most exhaustive treatise on the occurrence of appendicitis, written by R. W. Murray, of England, certainly points to vegetarianism as the natural precaution for "safety first" of that troublesome organ. It clearly shows that the disease is one of civilized diet. That men eat too much meat, and everything else as well, is becoming general knowledge. Fat men do not live long, and in nine cases out of ten the "running to fat" is but a proof of sheer self-indulgence, or ignorance of its dangers, and the price we have to pay for it. The average man, however, found it still almost impossible even in his own home to find palatable substitutes at his grocer's wherewith to satisfy his normal appetite. Battle Creek added to its task the endeavor to produce and popularize such. It is worth a visit to Battle Creek only to examine the ingenious substitutes for every kind of food with which the ordinary world is familiar. (The physical tests carefully carried out by Dr. Fisher, of Yale University, showed that the sanitarium staff of vegetarians, compared with athletes from Yale fed on meat, were just nine times as physically capable on an average in feats of endurance). But as Mahomet could not come to the mountain for any such purpose, health missionaries have been philanthropically dispersed to spread far and wide the new gospel for a new age. It is, however, still impossible to obtain a vegetarian meal in a Pullman car. It takes a hero to face the apparent discourtesy of being a vegetarian at a Thanksgiving dinner, or the scorn of a hotel waiter at an order confined to mush and pumpkin. Alas, also, those who as a rule stand most in need of an immediate change of intestinal flora realize that they are no longer in the hero class.

Among the innumerable charities started from this house of philanthropy, I shall refer only to the last and most unique—the Race Betterment Congress, which it organized and entertained, followed by its admirable exhibit for the same purpose at the Panama exhibition. Famous experts, present at that first congress of its kind, made its published records valuable and fascinating. Their attendance was made possible by their general recognition of the rapid increase of race degeneration, shown by the United States census bureau and records of the great life insurance companies. One result has already been the organization of the Life Extension Institute, offering its services to all insurance companies as well as to the general public, and the race betterment foundation with a prospective endowment of $1,000,000. Its object is not so much to discover new methods as to teach old ones so graphically as to make progressive measures acceptable to and indorsable among the great masses of the people.

Finally, this article is not to exalt Battle Creek or any one institution, or to attempt to give instruction in its various methods. It has no secrets, no patents, and no panaceas. It is written as a recognition of the indomitable pluck, the extraordinary genius, and the bona-fide motives of those who are so earnestly working and so largely succeeding in introducing methods for health and happiness which are within the reach of everyone, and which have already blessed so many thousands.

No one has a proprietary right to open-air sleeping, keeping in the sunshine, correct posture, massage of the body, sensible exercise, simple electrical treatment, scientific cooking, rational eating, water or other baths, and the thousand and one aids to nature which, though they cannot insure immortality to the finite, can, if rightly understood and handled, do more for righteousness, joy, and peace—that is, the kingdom of heaven on earth—than all the drugs ever invented or all the maxims of philosophies and preachers ever proclaimed.

In the struggle for existence, distrust of the motives of others was originally almost essential for self-preservation. Alas, there are still those who still wonder "what the good Samaritan got out of his job." A long experience of Battle Creek has forced me to class it as one of the vital forces now working for righteousness in the world.

It must not be supposed from what I have written that I am myself a confirmed vegetarian. I never used alcohol, and I have eschewed tobacco and hot condiments, and meat to as large an extent as possible. But, living in Labrador, I am still forced to bow in the house of Rimmon. In that environment vegetarianism would spell starvation. How-

ever, therefore, as much as I might agree in the theory with the gentleman who went to the Adirondacks to live on nuts, we were not able to keep it going long owing to the trifling supply of that commodity which he sent us. Moreover, I should feel a traitor to our people if I acknowledged that I had relegated fish food to my list of poisons. An absolute believer in the need for the strongest possible protest against luxury and overindulgence in foodstuffs, an ardent admirer of Dr. Kellogg and his system and sanitarium, I shall myself, I fear, have to forego any years which a diet absolutely void of offense might offer me, but, because I realize the immense debt I am already under to Dr. Kellogg and his teachings, I have tried to write this explanatory article. WILFRED GRENFELL, M. D.

HOSPITAL FEES FOR INDUSTRIAL CASES

Philadelphia Hospital Association Fixes Schedule of Charges Under State Compensation Law—A Most Important Move

The following correspondence, sent out by the secretary of the Association of Hospital Superintendents of Philadelphia, is self-explanatory, but a word might elucidate the matter somewhat:

Most of the states are passing compensation and sick insurance laws, and are generally covering the problem of insurance of one form or another for industrial employees. The hospitals of Massachusetts have only recently had up the problem of charges for these industrial cases, and the matter is not settled in that state; nor is it settled in any of the states. Pennsylvania is peculiarly situated in regard to its hospitals. Most of these institutions are subsidized in one form or another by the state, and an attempt is being made very seriously just now to reduce the hospital subsidies to fair working conditions—namely, that each hospital shall receive an amount of money anually from the state proportionate to the amount of actual charity work which it performs, and Pennsylvania, through its board of medical licensure, with Dr. J. M. Baldy at the head, is trying seriously to improve hospital conditions and to raise the standards of the institutions in that state. With a knowledge of these details, the attempt of the Philadelphia hospitals to fix charges and the conditions under which industrial cases shall be received in the hospitals will be noted as a most important action.

The following letter was sent to all manufacturers in Philadelphia:

Dear Sir: The inclosed list represents a fee schedule adopted by the hospitals of Philadelphia for the board and care of industrial accident cases under the Pennsylvania state compensation law. The charge for board, treatment, and nursing of bed patients is below the cost of maintaining such patients in many of the hospitals of Philadelphia, and many of the fees in this schedule are lower than those charged in other cities. Some of the local hospitals have been treating industrial accidents as free cases, and where a charge has been made it has usually been much below cost of maintaining such patients.

The deficiency resulting from the above practice has been made up out of the income from endowment funds or voluntary contributions, which funds and contributions have been given for the purpose of maintaining *charity* patients.

The hospitals listed, which have adopted this schedule, are not conducted for profit, and the schedule of fees has been arranged with a view of covering only cost of such patients.

Very truly yours,

W. W. WALSH, M. D., Secretary.

This letter was accompanied by the following explanatory sheet:

IN RE HOSPITAL CHARGES

PHILADELPHIA, PA., March 13, 1916.

Employers of labor may at first feel that a charge of $2 a day for the board and treatment of ward cases is excessive, but when the situation is understood it is believed they will realize that the action the hospitals have now taken is the only proper one, and that this action has been long delayed.

It has been suggested that it is unfair to charge $2 a day for industrial cases when some other cases are treated for $1 a day. If this argument were followed to its logical conclusion, it would be equally unfair to charge $1 a day for one case and to make no charge for another case in the same ward, which has been the recognized practice of hospitals in Pennsylvania since their foundation.

The charge of $1 a day was instituted more than a century ago, when the cost of maintaining a patient was below that figure. Today there are very few hospitals whose actual per capita per diem cost is below $2, and many are much above this amount. It is, therefore, manifest that a great deal of charity is being given to many patients who believe they are really pay cases.

A lower rate than $2 a day would mean that the deficiency in the future, as in the past, would have to be made up out of income from endowments or contributions which have been made for the treatment of indigent patients. In the past many hospitals of Philadelphia have been treating the injured employees of prosperous industrial concerns as charity patients, and in doing this have deflected funds from the purpose for which they were given—the care of persons needing charity. The hospitals feel that it is not right to continue this practice, and believe employers of labor will not want it continued when the conditions are understood.

The rate of a pay patient in a ward should be the per capita per diem cost. Patients who are admitted below this amount should understand they are receiving part charity.

The schedule of fees adopted in Pennsylvania is lower than that charged in most other states, where the weekly charge for industrial cases is $15 instead of $14, as in Pennsylvania. The schedule of charges for receiving ward and dispensary cases in Pennsylvania is below the rates charged in many other states, and, as a large majority of the cases are minor injuries, the employers will soon recognize the liberal attitude the hospitals of Pennsylvania have taken in these cases. The maximum charge of $25, excepting where a major operation is performed, is much below the maximum in some other states. Many of the accidents which receive ward treatment remain in the hospital for several weeks, costing the hospital several times the amount of the maximum compensation allowed.

It seems a well-established fact that insurance rates have been based on the expectation of a higher schedule than the one in force in Pennsylvania, and some of the insurance companies who are doing business in other states have expressed their appreciation of the liberal attitude the hospitals in Pennsylvania have taken.

Before the hospital schedule was adopted, one insurance company circulated a higher schedule, and asked physicians and hospitals to agree to treat their cases under said schedule. This same company has since issued a lower schedule to conform with that suggested by the hospitals.

The hospitals are very desirous that the cordial relations which have existed between them and the industrial concerns of the community in the past will continue in the future, and believe that in the final analysis the position the hospitals have taken will be commended and not criticised.

The schedule and list of Philadelphia hospitals signing to meet the schedule are as follows:

FEE SCHEDULE FOR THE TREATMENT AND CARE OF INDUSTRIAL ACCIDENT CASES UNDER THE STATE COMPENSATION ACT

House Cases—	
Bed, board, and general nursing (minimum charge, $5.00) per day	$2.00
Operating room fee	5.00
Ambulance service	no charge
Laboratory examinations (not often needed)	$2.00 to 5.00
Special drugs, serums, vaccines	at cost
Receiving Ward and Dispensary Cases—	
First dressing	$1.00
Subsequent dressings	1.00
Anesthetics	3.00
Other Fees—	
Minor operations	$ 2.00 to 5.00
Major operations	25.00 to 50.00
X-ray examinations	3.00 to 10.00
Reducings and dressings—fractures	5.00 to 15.00
Reducings and dressings—dislocations	3.00 to 10.00
Written report at any time as to condition of patient	no charge
Special examination and full report	3.00 to 5.00

HOSPITALS THAT HAVE ALREADY ADOPTED THE ABOVE SCHEDULE

Howard.
Woman's Medical College.
Children's Homeopathic.
Garretson.
Women's.
N. E. Dispensary.
Fred Douglass Memorial.
Samaritan.
Germantown.
Jewish.
Mt. Sinai.
University of Pennsylvania.
Jefferson.
Philadelphia General.
Presbyterian.
German.
Hahnemann.
St. Luke's.
Pennsylvania.
Women's Homeopathic.
W. Philadelphia Hospital for Women.
Roosevelt.
Frankford.
Children's Hospital.
Medico-Chirurgical.
Episcopal.
Stetson.

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Army Medical Museum and Library, Office of the Surgeon-General, United States Army.

Largest Hospital (The) in Vienna (Das grösste Spital in Wien). New York Staats-Zeitung, 1916, February 17.

A new military hospital has been erected in Simmering, near Vienna. It consists of fifty-six barracks and contains 4,500 beds. A number of reserve hospitals established in school buildings, military barracks, etc., are now transferred to this hospital. Dr. A. Herzfeld will be the director of this great establishment.

The Need for More Insane Hospitals in New York City. Ed. Med. Record, 1916, LXXXIX, No. 8.

The New York State Hospital Commission is urging that the proceeds of the suggested sale of the Mohansic State Hospital site be used for the purchase of another site and the erection of a hospital near New York city. The commission believes that this action is imperative because of the overcrowded condition of the state hospitals for the insane, particularly those near the city. The capacity of all the fourteen state hospitals is 27,840 patients, but at the present time they are housing 6,484 patients over the number of those who can be properly accommodated, and each year the overcrowding becomes worse.

Construction of a Barrack School Building for Children Infected with Ringworm (Costruzione di una scuola-baracca per tignosi a Milano). Ospedale Maggiore, Milano, 1915, III, No. 11.

To prevent the spread of ringworm infection, the city of Milan has erected a temporary school building for children affected with ringworm on grounds belonging to the Ospedale Maggiore. The building contains three school rooms, a dining hall, a room for the teachers, and several auxiliary structures.

The Standardized Hospital and Its Obligations. Gordon K. Dickinson. Jour. New Jersey Med. Assn., 1916, XIII, No. 2.

The standardized hospital will be one that will comply with the laws of the state and accede to the demands of the colleges. It will consider the interests of the patient as paramount, giving to him the best methods of treatment. The attending staff shall have every facility for diagnosis and the proper care of the patients, and not be hampered by economics. The education of the intern shall be entered into by every member of the attending staff, and every facility given him to obtain a practical knowledge of symptoms, diagnosis, treatment, and end result. He shall receive an honorarium. In return for the salary and for the training obtained, which is under the guidance of the college from which he comes, the intern shall be expected and compelled to live up to rules and regulations of the institution that are in accord with the law and college demands—for instance, prompt attendance on the ward, care, supervision of hospital work, keeping of a complete history of each case, and finishing his work before he takes an afternoon off. The nurse shall be completely educated by lectures, book study, and practical methods.

Hospitalization of Sick Prisoners of War (Hospitalisierung kurbedürftiger Kriegsgefangener). Der Bund, Berne, 1916, January 22.

Through the humane efforts of the Swiss government an arrangement has been brought about between the governments of France and Germany by which sick prisoners of war who are detained in these two countries are sent to Switzerland for treatment. At first the tuberculous soldiers kept as prisoners in the two countries will be released and sent to the well-known health resorts of Switzerland. The German soldiers will be treated at Davos, the French at Leysin and Montana. Later on prisoners of war with other serious diseases will also be sent from both countries to Switzerland for treatment. To take care of so many patients, it is planned to convert some of the numerous Alpine hotels, most of which are now closed on account of the war, into sanitariums. Surgeons of the Swiss army will visit the prison camps in France and Germany, and select the patients which are to be transferred to the Swiss health resorts.

Reported Dangers from Enamel Ware. Ed. The Jour. A. M. A., 1916, LXVI, No. 8.

The use of enamel ware meat choppers has been forbidden by the French Superior Council of Hygiene because of the danger of small fragments becoming mixed with the meat. Longworthy and Long, of the Office of Home Economics in the Department of Agriculture, assert there is not a known case on record where serious injury has been done the intestinal wall by enamel fragments, but call attention to the liability of danger in the coloring pigments used in enamel ware; that enamels containing lead oxid are dangerous, due to poor resistance to various chemicals, but that this ingredient is rapidly coming into disuse. Experimental work on the antimony enamels tends to prove that little of the antimony compounds are extracted when boiled in weak organic acids. It is, however, now possible to purchase enamel ware labeled, "free from antimony."

Hospital Conditions Illustrated by the Institutions of Three Great European Cities (Het ziekenhuiswezen met voorbeelden ontleend aan drie groote steden in Europa). By Dr. J. L. Wortman. Ziekenhuis, Amsterdam, 1915, VI, No. 12.

The author visited a great number of hospitals in Germany, Denmark, and France, and comes to the following conclusions:

Hospitals have reached their highest development in Germany, "the cradle of all social medicine," but Denmark, especially as regards the hospitals of Copenhagen, is a close second. France has lagged behind in hospital science, though of late years she has also made great progress. It is certain that after the war hospital development will make great strides in the belligerent countries. Never before have so many millions of people learned to know the great value of medical science. Closer than ever before will national ties bring the various classes of the people together, and the public spirit will be raised to such an extent that public hospitals cannot fail to greatly profit by it.

The Hamburg hospitals are representative in hospital construction in Germany. The Hamburg-Eppendorf Hos-

pital is the counterpart of the old corridor structure. Its beginnings date back to the seventies of the last century. A great number of large pavilions have gradually been added, so that there is now room for 2,000 patients. Of a still older date is St. George's Hospital, but it has recently been entirely modernized and a number of pavilions have been added. It contains now about 1,600 beds. During the last few years the city has built, at a great expense, a new hospital at Barmbeck. On grounds comprising twenty-one hectors thirty-three large pavilions have been erected capable of housing 1,750 patients. The basic idea of this hospital was to separate the various diseases. There are pavilions for angina and influenza, surgical tuberculosis, skin and sexual diseases, etc. The Barmbeck institution is the type of the modern German hospital—large pavilions on extensive grounds, and provided with all the improvements of modern science. These hospitals are centers of science, and do more scientific medical work than many university hospitals.

Copenhagen has recently erected a new hospital two kilometers from the city. Bisbebjerg Hospital is one of the most modern institutions of its kind, and to see it is alone worth a trip to Copenhagen. It stands on a beautiful plateau, with a magnificent view of the surrounding country. The University Hospital, completed in 1911, is a monument to the enterprising spirit of the Danish people. In the center of the grounds are the pavilions for internal and surgical diseases, separated from the stir of the student clinics. The large sick wards in the pavilions, though containing 28 beds each, make an extremely pleasant and homelike impression. The large Municipal Hospital, in the center of the city, on one of the great thoroughfares, is a model of a great corridor structure. The large tuberculosis hospital at Oresund, with its pretty pavilions and beautiful park, looks like a handsome village. It has room for 500 patients.

The city of Paris has during the last few years appropriated 45,000,000 francs for improvements in its hospitals. In 1914 40,000,000 of this sum had already been spent on a great number of new buildings for the various hospitals and hospices. The so-called hospices are institutions receiving foundlings, orphans, old people, incurables, insane, epileptics, etc. These hospices thus serve chiefly as establishments where all permanently mentally, bodily, and socially abnormal individuals are cared for. The Hospice de Bicêtre contains a medley of all kinds of patients, among them being 1,208 insane persons and 1,172 old people. Among the latter class are many epileptics and tabetics, and patients suffering with incurable cancer. A similar medley of patients is found in the well-known Salpêtrière Hospital, which, with its 4,000 inmates, is the largest nosocomium in the world. Most of the Paris hospitals are old structures, which fact explains the large sums spent for modernizing them. The oldest is the Hôtel-Dieu, whose history runs back to the eighth century. Of historical interest is also the Hôpital Lariboisière, with its extensive grounds, as it was the first great pavilion hospital ever constructed. The Paris hospitals form two large groups—general and special hospitals. The latter are again divided into hospitals for adults and children. The general hospitals are scattered all over the city, each receiving the patients of a certain quarter of the great metropolis.

Effect of Foods on Aluminum Cooking Vessels. Professor John Glaister. The Jour. of Home Economics, 1916, VII, No. 6.

Professor Glaister, of the University of Glasgow, has recently made public the reports of his experiments on aluminum cooking utensils. Various foods, such as bacon, milk, oranges and lemons to form marmalade, brussels sprouts, and tomatoes, were cooked in aluminum containers under kitchen conditions. The foods were then analyzed by standard methods for aluminum in its various chemical compounds. The greatest amount of the metal extracted was in the form of aluminum hydroxid, an equivalent of 1.018 grains to two pounds of orange and lemon marmalade. This quantity would be perfectly harmless even if the entire amount of preserves be eaten at one time, which would be extremely improbable. No aluminum chlorid was found in any of the experiments, and the largest amount of hydroxid found would, if converted into chlorid in the stomach, still fall far short of the medical dose of aluminum chlorid.

Impressions of the Care of Wounded and Sick Soldiers in Austria (Indrukken over de verpleging der gewonde en zieke militairen in Costenrijk). Dr. Z. Quack. Ziekenhuis, Amsterdam, 1915, VI, No. 8.

The Austrian military hospitals in Bohemia, Silesia, and Moravia contain about 100,000 beds in all. The author is most favorably impressed with the excellent management of these hospitals. Chrudim, where the author worked for three months, is a small town about fifty miles from Prague. It is an educational center. Ten of the largest school buildings were converted into hospitals. Each hospital receives a special class of cases. Three hospitals are devoted to surgical cases, three to internal diseases, one to infectious diseases, one to venereal diseases, and one to patients suspected of having a contagious disease. The author acted as a surgeon in a large, handsome college building, which had, with great skill, been converted into a hospital. On the first floor were the rooms for the physicians and the Swiss and Dutch Red Cross nurses, a room for the disinfection of the uniforms of the soldiers, bath rooms, etc. On the second floor were the large electrically lighted sick wards. One wing, containing the typhus and dysentery patients, was completely isolated from the other parts of the building.

Merely to see the arrival of a hospital train and the disposition of the wounded, the author says, is worth a trip to such a hospital. The train stops in front of a long wooden station building. The platform between the building and the train is covered by a shed and divided into ten compartments, according to the nature of the cases. Nobody is allowed to leave the train. First the seriously wounded are unloaded and carried on stretchers to their respective compartments. Doctors go around and attach to each patient the number of the hospital and the number of the ward where he is to be carried. Then the Red Cross ambulances, each holding four stretchers and large transportation vans, each capable of carrying twenty-two stretchers, carry the patients to their respective hospitals.

The author also visited the barrack hospital at Pardobitz, and was impressed with its large size. It consists of rows after rows of long one-story barracks, and has room for no less than 15,000 patients with infectious diseases. The erection of this hospital alone cost 18,000,000 crowns (about $3,500,000).

Through Judge D. C. Webb, of the juvenile court, the city of Knoxville, Tenn., has been offered a private donation of $10,000 for the erection of a detention home on the condition that the city will maintain the institution.

Miss Marguerite Burgoyne has recently received the appointment of occupation manager at the Burke Foundation for Convalescents at White Plains, N. Y., and considerable extensions in this field are planned by the foundation.

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The recent financial campaign for the benefit of the Youngstown Hospital, Youngstown, Ohio, brought subscriptions amounting to $236,000.

DEPARTMENT OF NURSING

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Nursing Care of the Insane

On February 14 last the queen unveiled a memorial of Florence Nightingale, placed, reports the London *Times*, "in the crypt of St. Paul's Cathedral on the wall of the great archway that leads from Nelson's tomb to Wellington's, not far from the graves of Wolseley and of Roberts." At this ceremony the archbishop of Canterbury said, in part, as follows:

"For half a century we have thanked god for what Florence Nightingale has wrought and taught, but we did not know its range or its greatness until now. So it is fitting that your majesty, on behalf of English womanhood, should unveil this monument in a year when, in the nation's need, tens of thousands of women are, with persistency of quiet devotion and a ministry of steadily increasing skill, following the path wherein 'the lady with the lamp' was pioneer.

"It is easy, or, rather, it is not easy, to measure what the difference might have been had that pioneer been a woman of unbalanced enthusiasm, however eager, or of mere plodding devotion, however praiseworthy. The lead she gave might easily have been discredited and therefore fruitless of result. But when to a buoyant faith, a courageous hope, and a large love were superadded the gifts of penetrating judgment, of potent personal influence, and of almost unrivaled administrative skill, the fruitfulness of the leadership was immediately secure. England and, through England, the whole world know now, to a degree they never knew before, in camp and hospital, on land and sea, the priceless value of the gentle deftness and the tender skill of trained womanhood both in peace time and when the horrors of war are at their worst.

"We do well to set here in our Cathedral among our warriors' tombs the monument of one to whom we owe so much."

It is indeed not easy to measure what the difference might have been had this woman, so many years in advance of her time, preached less intelligently and convincingly preparation and prevention, nor is it easy to measure the results that might have followed had her scheme of nursing education been less in seeming and more in substance carried out.

Dramatic and tragic as is the nurse's field today in the countries at war, it is not perhaps so much more dramatic or tragic than the nurse's field—certainly the so-called public health field—today in this country at peace. For the needs of the former we are grateful that she is showing herself prepared. For the needs of the latter we are constantly told by those best fitted to pass judgment that she neither numerically nor educationally measures up. The leaders in the public health field are insistent that special courses be provided during the three years' training, elective or required, for those students who are likely to enter this field. They particularly urge practical and theoretical instruction in tuberculosis and other infectious and contagious diseases, and mental diseases; they lay much stress on very thorough courses in the care of the child, from the prenatal to the adolescent period, and they advise courses in social service and in industrial and visiting nursing. While we question if these last three courses should be included in the general scheme of nursing education, believing that they are part of the later and special preparation, we are not only heartily in sympathy with the other courses that they urge, but we deem it to be a heavy indictment of nursing education that today they should have to beg that graduates in nursing should come so prepared. The workers in the public health field are only voicing, however, what has been appreciated by nurse educators for a number of years, and that is that schools of nursing are preparing the nurse mainly on the basis of what the individual institution has to offer—not on the needs of the community. Not until the public health field was opened did the nurse's preparation, in relation to the needs of the community, come under close and qualified scrutiny.

It is sometimes said that the failure to provide experience in contagion and mental disease is due to the student's unwillingness to take these services. To give this as a reason is not to be conversant with the hospital situation. It is true that it is not possible for special hospitals to attract students in large numbers for limited and demanding fields, especially when the course offered covers a period nearly as long as the period required for preparation for the general field. But whenever a general hospital has a department of contagion, psychiatry, or tuberculosis, and it is expedient that the nursing shall be done by the student force, the student is found there, and without a protest on her part. The writer can speak concerning a tuberculosis service from an experience in two hospitals extending over five years. Only twice during this period did any student protest, although in one institution the badly ventilated and overcrowded wards, the long hours, and inadequate staff would have fully justified a protest on the part of the students. No, there are other reasons for the failure of schools of nursing to obtain and require these services for the student nurse when they cannot be provided through their own plan, and in some instances they are quite justified in not procuring affiliations. The demand, however, that nurses shall have these services is not only too insistent, but too reasonable not to command the sympathetic and effective interest of those who have assumed the responsibility of the nurses' training, if their consideration of the matter be but secured.

We hope that not only those who are concerned with the education of the nurse, but those interested in health problems, will carefully study the report on the nursing care of the insane in the United States that appears in this issue. This report was prepared for the American Nurses' Association by Miss Katherine Tucker, chairman of the Committee on the Care of the Insane. The members of Miss Tucker's committee were all nurses thoroughly conversant with the special problems of this field, while she herself has held the position of social service director of the Committee on Mental Hygiene of the New York State Charities Aid Association for a number of years. The report of this committee presents very clearly the difficulty of urging the affiliation of the general hospitals with mental hospitals at the present time. It is far more urgent that the general hospitals should send their students for a course in the mental hospitals than that they should open their doors to the students from these hospitals. We believe that we are expressing the opinion of a number of our most thoughtful and experienced nurses in this field when we say that the best result will be obtained in mental nursing when the experience in the general hospital comes first. The problems in mental training are infinitely more intricate and delicate than those met in

any other branch of nursing, not excepting the nursing of children, and require therefore the highest type of women with the most thorough and all-around preparation. Here, not less than in other fields, is the preventive work from the standpoint of the community the greatest need. To put the knowledge of mental diseases in the hands of the nurse, it matters not what her field is, is to strike at the root of one of the most serious and tragic problems that we have to face in the community today. We are convinced that some, at least, of the conditions that justify the general hospitals in refusing to consider an affiliation with mental hospitals are more a question of readjustment than of additional appropriations. The organization of the school, the scheme of education, the placing of nurses, attendants, and employees in one group or class, all might be changed if the need of such changes were appreciated.

It will be noted that the system of administration in these hospitals is quite the reverse of that outlined by Dr. Hurd in a recent editorial under the caption, "Who shall manage the training school for nurses?" Dr. Hurd outlines clearly the logical system of control, emphasizing that, while the appointments in the nursing department should be approved by the superintendent of the hospital and ratified by the board of trustees, the superintendent of nurses should have the selection and control of the nursing staff. "No person," he says, "has the right to ask any artisan to do a specified task and at the same time forbid him to select his own tools. This is equally true of one who is responsible for the education of nurses. All courses of study should be arranged by the superintendent of nurses after consultation with the superintendent of the hospital. All assignments of duty of nurses should be left to the same authority. It is impossible to give nurses a rounded and complete course of instruction and experience when they are assigned to duty according to the whims of physicians. It must not be forgotten that the object of the training school is not alone to secure nursing for the hospital; it is equally to give a proper education to the pupil nurse." Mental hospitals, and indeed all special hospitals, should be urged and aided to make the readjustment that will encourage the general hospital to affiliate with them; not less for the benefit of their own patients than for the benefit of the community at large. The question of organization is an especially important one in mental hospitals.

It must be admitted, however, that the rapid expansion of the nursing field, with the consequent increasing educational demand, is placing too heavy a burden on the hospitals. It is even now beyond the possibilities of any but the largest and most heavily endowed institutions to give the nurse the preparation that is generally considered to be essential. The logical outcome will be, and indeed already is in one or two instances, the establishment of the school of nursing under the university. Not only will all the resources then of the university be available for the school of nursing, providing the scientific foundation now generally accepted as desirable and making the establishment of graduate courses for the special fields easily possible, but the insight and experience of educators in other fields will be brought to bear on the problems in the field of nursing education.

"It must not be overlooked," says an educator, "that the similarities in all educational problems are greater than the differences." Says another authority, "Under modern social conditions a nation will . . . inevitably lack not only industrial power, but also social contentment and efficiency, if it fails to conceive its various educational difficulties as fundamental—a single problem to be worked out by institutions related in the most vital way to one another and representing together a national conception of progress and betterment."

The affiliation of schools of nursing with private, endowed universities will mean a special endowment; but it should not be less possible to obtain endowments for these schools than for others. Under a state university a special appropriation will probably be required. The schools so established will be no more than is any medical school an integral part of the hospital. One or more hospitals will serve as laboratories, and to their own great advantage, for these schools. This will result, probably, in fewer schools of nursing, possibly in fewer hospitals. It will not necessarily diminish the number of graduates in nursing or the number of hospital beds. It will provide a sounder body of education than can be hoped for with the widely varying courses in nursing that now obtain. It will insure to the state that is making increasingly large appropriations for this public servant a person competent to deal with health problems. It is not less important and just that the citizen also, who is paying for an expert, should be insured a competent nurse.

ANNIE W. GOODRICH.

The Annual Convention of the Three National Nursing Organizations

The annual convention of the three national nursing organizations—the American Nurses' Association, the National League of Nursing Education, and the National Organization of Public Health Nursing—will be held in New Orleans, La., from April 27 to May 3, inclusive. The headquarters of the organizations will be at the Hotel Grunewald, and all the meetings will be held there, except the mass meeting on Sunday afternoon, for which the Atheneum has been secured.

The midafternoon and evening sessions will be open, and will be attended by the three organizations. Sessions will be held by each organization every morning from 11 to 12:30; round tables from 9 to 10 and from 5:30 to 6:30 will also be held daily.

At the formal opening on Thursday evening the invocation will be made by Bishop Sesums, the address of welcome by Mayor Berham, and there will also be addresses by the Hon. Leon Locker and the presidents of the three organizations—Miss Noyes, of the National League of Nursing Education; Miss Gardner, of the National Organization of Public Health Nursing; Miss Goodrich, of the American Nurses' Association.

The evening session, under the auspices of the National League of Nursing Education, will be on "Problems of Nursing Education." A paper will be read by Miss Nutting on "The Ideal Training School with a Special Endowment." There will also be a paper on "The Present Status of Woman's Education."

The evening session, under the auspices of the National Organization of Public Health Nursing, will be presided over by Dr. Oscar Dowling, president of the Louisiana State Board of Health. The subject under discussion will be "Municipal Nursing," and it is expected that papers will be read by Dr. Patterson, of Ohio; Mrs. Margaret Sirch, of California; and Dr. Terry, of Florida.

The evening session, under the American Nurses' Association, will be devoted to the work of the Red Cross. Papers will be read on "The Red Cross Nurse in Time of Disaster," by Dr. Dowling; "Experiences of a Red Cross Nurse in Serbia," by Miss Gladwin, illustrated by slides; "How a South Carolina Community Provides for Sanitary Inspection," by S. M. Babb; and "Town and Country Nursing Service," by Miss Clement, with moving pictures show-

ing the activities of the nurse in the small community. Miss Delano will give a brief review of the Red Cross activities during the year.

One afternoon session will be devoted to mental hygiene, another to legislation governing the practice of nursing, and a third to the dietary department in a hospital.

At the morning sessions and at the round tables the following subjects will be taken up: Records and Statistics, Medical Social Service, Mental Nursing, Industrial Nursing, Tuberculosis Nursing, Rural Nursing, Private Duty Nursing, Hourly Nursing, Directories, Problems in Hospital Administration, Problems in Training School Administration.

In the March issue of the *American Journal of Nursing* will be found the report of the transportation committee, which gives in detail the special sight-seeing tour arranged by the Frank Tourist Company. Mrs. C. V. Twiss, chairman of the committee, 419 West One Hundred and Forty-fourth street, New York city, will be glad to give any further information that may be desired.

The State Board of Health and Ohio's Public Health Nursing Service[1]

BY HELENA R. STEWART,
Brown University, New York Hospital, State Supervising Nurse of Ohio.

The problem which confronts the Ohio State Board of Health is the elimination of preventable diseases and the improvement of health conditions in the state. Through the "Division of Public Health Education and Tuberculosis" the work of propaganda is carried on by lectures, literature, exhibits, and newspapers; yet, in our opinion, the best kind of education comes in the homes of the people at the time when sickness makes its appearance. At such times the nurse with a social vision can inculcate the principles of hygiene and sanitation in a manner and with a lasting effect that cannot be equaled by any other agency. Our ambition is to provide a public health nursing service that will cover every square foot of territory in Ohio, and, when this has been accomplished, we can attack the problems of tuberculosis, infant mortality, and hygiene of school children on a systematic basis.

The growth of the nursing service in Ohio indicates clearly that there is a latent desire for such work on the part of every community in the state, and it needs but to be crystallized in order to find expression. When this work was begun in 1911, there were twenty-three organizations in cities of 69,067 to 560,000 population, employing 126 nurses. On September 1, 1915, there were sixty organizations in cities of 4,000 to 560,000 population, employing over 400 nurses. There are still large sections of the state without the services of a nurse, and it is estimated that it will take at least five years more to close up the gaps in our organizations.

Dr. Lee Frankel, of the Metropolitan Life Insurance Company, said last summer in San Francisco: "The day has gone by when it is necessary to offer apologies for visiting nurses. This form of activity is today well recognized as an important factor in the improvement of health conditions. Beginning as a philanthropy primarily for bringing medical services into the homes of the poor, visiting nursing has evolved by leaps and bounds. Today the visiting nurse is used not only as a philanthropic measure, but by health officers in the health work of their respective communities, by private organizations engaged in the prevention of disease, by industrial establishments to enable them to care properly for their employees, and by insurance companies to promote the physical welfare of their policy holders. With the development of visiting nurse work, there have come certain responsibilities. Not the least of these is the necessity for a careful accounting of the work done."

The results obtained through the service of the visiting nurse should be known to the health officer, the private organizations, the board of education, or the industrial company employing the service. There is probably no nurse here who does not believe in and keep records for her own particular community, but these are not necessarily expressive of conditions existing in the population generally. We have been criticised because at present there are no reliable data for nurses' work available, and there are many figures which it would be possible to gather and which would be of value not only to the National Organization for Public Health Nursing, but to all students of sickness and its social consequences.

Ohio is the only state which has the equipment to furnish these records and statistics, for it is the only state in the Union to recognize the value of a public health nursing service to the extent of appropriating money for its extension and standardization. Much credit should be given the nursing organizations in the large cities for the respect which the legislators must have had for their work in order to wish to provide the smaller cities and towns with a similar service.

This appropriation was given to the State Board of Health for its Division of Public Health Education and Tuberculosis, and a nurse was employed whose office it was to extend and standardize public health nursing. She was to be paid by the state, she could have access to state reports, and her interests were to cover the state, yet the Division of Public Health Education and Tuberculosis has always been, and is still, absolutely dependent on the goodwill, interest, and cooperation of all the public health nurses for the collecting of any data for their work. As the state is made up of cities and counties and townships, its records of nursing, as well as its records of any other of its activities, are incomplete without the records and statistics of all its constituents. The State Board of Health is the natural, logical center for the collection, classification, and study of these reports, for it is not a local organization; its limits are the boundaries of Ohio, and, while its offices are in Columbus, its interest is no more centered in Columbus than in Dayton or Cleveland or Monroeville.

The request for your support and cooperation is not in any sense intended to be an interference with your organization or plan of work, but merely your contribution to the total figures. If these statistics can be collected, the Division of Public Health Education and Tuberculosis will not claim any ownership, for we shall consider that they belong to every city, village, and county in Ohio, and not to Ohio alone, but all the other states which are looking to us for results.

The Metropolitan Life Insurance Company is asking what we are accomplishing in Ohio. Different departments of nursing and health in various universities, the National Organization for Public Health Nursing, and the National Organization for the Prevention of Blindness are looking to Ohio for records and statistics because our equipment and some of our laws in regard to prevention of disease are more advanced than those of other states. Ohio's new law in regard to the prevention of blindness from inflammation of the eyes of the new-born is the most advanced of any in the United States, and is

[1]Read before the Ohio State Association of Graduate Nurses, October, 1915.

regarded as a model for other states. According to this act, every case of inflammation of the eyes of the newborn must be reported immediately to the local health officer. If the case comes under the observation of a nurse, she is responsible by law for the reporting of the case. If the afflicted baby is in a family where a private nurse cannot be employed, the health officer or physician is instructed to call on the public health nurse for help in the treatment of the baby's eyes. If the little patient is in a locality where there is no nursing service, by telephoning or telegraphing to the State Board of Health a nurse can be obtained, who will treat the eyes of the baby and teach the family the danger of the disease.

It is estimated that 50 percent of all blindness is preventable, and that more than one-quarter of the pupils in the schools for the blind are sightless because their eyes were not properly treated during the first days of life. Surely it is our responsibility to spread the knowledge that much blindness is needless and to teach the various causes of blindness and prevention, and to share the reports of our work with others laboring for the same cause.

There is a great advantage in having all tuberculosis work centered in one office. The notification and registration of all cases of tuberculosis is now compulsory, and this fact is recognized as one of the first and most important measures to be adopted and insisted on, and such a regulation can come only through and be enforced by health departments. The State Board of Health furnishes uniform blanks to all the health officers in Ohio, so that all reports can be submitted in compliance with the statutes and the rules and regulations of the board.

As provided in the general code (section 3147), the State Board of Health has been given supervision of all state, county, and district hospitals for tuberculosis, and authority to prescribe and enforce such rules and regulations for their government as it deems necessary. With this authority, provision has been made for a bureau of admissions and discharges in the Division of Public Health Education and Tuberculosis. This work is in charge of a public health nurse. The State Board of Health shall be notified within twenty-four hours of every application for admission of a patient received by the medical superintendent or other responsible officer of each county or district tuberculosis hospital, and of every death or discharge of a patient, and, if possible, of every contemplated discharge. When the Bureau of Admissions and Discharges is notified of the admission of a patient to a tuberculosis hospital or sanatorium, it in turn notifies the public health nurse or the superintendent of nurses in the municipality or county from which that patient comes, sending to the nurse such information as the hospital superintendent has given our bureau of admissions and discharges, and will request from her a return report concerning conditions found in the patient's home and place of occupation. During the patient's residence in the sanatorium the nurse may thus keep in touch with the patient's family and associates.

When the nurse in charge of hospital admissions and discharges receives from the hospital superintendent the report of a patient's dismissal, for any cause, she will again notify the local public health nurse and send to her the hospital's report on the patient's condition on discharge. A report on home and family conditions will again be requested, as these will, no doubt, frequently change during the patient's absence. We are trying to keep in touch with the physical condition of patients from year to year. The importance of having accurate records on the outcome of sanatorium treatment, from which conclusions and deductions can be made and the coordination of this data gathered by numerous institutions, from a statistical standpoint cannot be overestimated. It is apparent that the incipient case—the favorable case—is the neglected case, and it is deplorable that the histories of the Ohio state sanatorium patients show delayed diagnoses averaging nine to ten months from the onset of the first symptoms before a diagnosis is made.

With the earnest cooperation of all tuberculosis workers, this system would give Ohio a better opportunity of controlling the tuberculosis situation than the state has ever had before, for a knowledge of the foci of infection is the first step in the discovery of incipient cases. We want to cover the state with lines of a public health nursing service like a cobweb on the grass, so that we may receive the messages of interest from even the most distant nurse, and so that she can get word to us if she needs help or advice. We want to be able to reach her when, through our system of reports, we hear of urgent cases in her district, and we want to know and record the work which she is doing.

The ultimate purpose of the whole division is the education of the people in the way of health, so that they may safeguard themselves from preventable diseases, and we believe that one of the most important factors in the accomplishment of this end is the public health nurse who goes as a friend and with a friend's welcome into the schools and homes of the people, telling them scientific facts in simple terms which they can understand, a service so great that its extent is difficult to imagine.

NEW QUARANTINE RULE IN NEW YORK

Greater Precaution to Be Used in Clearing Diphtheria Patients Who May Redevelop Bacilli

It may be of considerable interest to contagious hospitals to know of recent changes in the New York diphtheria quarantine regulations. It has been proven in many instances that, after the release of convalescent diphtheria patients, a third or fourth culture would show the presence of diphtheria bacilli in the throat or nose. In order to decrease the number of diphtheria carriers, a more definite period of quarantine has been established as follows:

"On and after February 28 no later culture will be examined for release from quarantine which is made earlier than twelve days from the date of report of the disease. Two consecutive negative cultures, made twenty-four hours apart, preferably from both nose and throat, will be required, as at present."

Anthrax in Shaving Brushes

Recently in London some cases of anthrax were traced to infection through shaving brushes. Inquiry disclosed that another lot of these brushes had been consigned to Glasgow. By order of Dr. A. K. Chalmers, health officer of Glasgow, all the brushes were isolated, withdrawn from sale, and were examined. The bacillus of anthrax was isolated from hair taken from ten brushes, and was found to possess a degree of virulence quite equal to the organisms usually taken from cases of anthrax.

The New York city health department has sent out a warning about this source of anthrax infection, but also assures the people of that city that the prevailing methods of manufacture of shaving brushes in this country would preclude the likelihood of an infection of the kind. The department suggests that the point is well worth watching.

DEPARTMENT OF DIETETICS

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The Status of Hospital Dietetics

The following bit of news was printed in many newspapers of the country one morning recently:

"Prominent women representing all parts of the country have been appointed members of a special committee to organize a campaign undertaken by the National Housewives League to build up the health of the nation by proper feeding as its contribution to the preparedness movement. Every woman's organization in the country will be urged to take up the propaganda."

"If we are ever to have war, we cannot fight with anemics and dyspeptics," says a statement issued by the league.

The importance of feeding people intelligently is gaining more recognition all the time. Women's clubs and numerous other organizations working for civic betterment have for some time been studying the composition, digestibility, and cooking of foods, and also related subjects.

What if these women should become so well informed that some of the members of the medical profession would have to arouse themselves from their lethargy and do a little studying in order to keep pace with the laity! Many medical men do realize the value of dietetics in their practice, and are giving it such prominence as to furnish another incentive to the less wide-awake man.

In our hospitals the scope of the work in dietetics is represented by the attitude toward the dietitian. In the February number of THE MODERN HOSPITAL Dr. Joslin has an article in which he expresses the situation very well when he says that in many of our hospitals the dietitian plays an unimportant role, but that it is very noticeable that the more modern the hospital, and the more up-to-date its management, the greater the power of the dietitian.

In the past the status of the dietitian has not been high for two reasons:

1. The hospitals have offered no inducement to the woman who is well trained or has valuable experience. In the majority of cases she has been expected to work in kitchens which were inadequately or poorly equipped, and often with not nearly enough help to do, as it should be done, the vast amount of work necessary to feed a large number of people. She has been expected to take orders blindly from physicians, nurses in charge of wards, nurses on special duty, or anyone else in the house who had need of extra food, and to fill these orders without question regardless of her resources or facilities for doing so, and quite regardless of any training she may have had. This has occurred in hospitals where very rigid regulations are observed when it comes to ordering from any department in the house except the kitchen. While her province covers more territory and includes more different kinds of work than any other one department, she has been offered less salary, and furnished fewer comforts or conveniences, than are offered the heads of other departments. Frequently she has not even been shown the same consideration and respect that the nurses in charge of a single ward are shown. Naturally, women of ability do not care to spend years in training for this kind of job—it cannot be dignified by the title of position.

2. Because of the conditions that have existed, the schools where domestic science is taught have not encouraged their best pupils to go into institution work. Even yet many of our instructors in domestic science are telling their students that they do not need such scientific knowledge nor so thorough training for hospital work as they do for teaching.

As a result, those who have gone into hospital work have been very often the young, inexperienced girls, or those who could afford to take only a short training. Thus, unprepared, they have not been able to work intelligently with the physicians; they lacked executive ability; the hospital life, with its multitude of requirements and regulations, has discouraged them, and they have had no desire to go on. The people with whom they should work have lost confidence in them, and from both points of view the work has been unsatisfactory.

Our most modern and best managed hospitals are overcoming the difficulties in this way: the dietetic department is being put on the same plane with other scientific departments of the hospital, the dietitian is given the same rights and authority that is given to heads of other departments, and is furnished with a few of the things necessary to put her department on a level with the others.

Perhaps the fact that this is being done may be made a little more real by telling a few personal experiences which have come to me in the past month—not necessarily that the past month has brought more of these experiences than any other month, but because they are fresher in my memory. The superintendent of a very large hospital came to me very much discouraged about the work of the dietary department. He said their doctors were wanting to do dietetic work in a scientific manner, but they realized their lack of knowledge of the subject, and felt they could not spare the time to go into it sufficiently to carry on the work. They wanted someone to take charge of their kitchen who could tell them what to order for certain conditions, and what chemical changes took place in the cooking of some of our food materials; in other words, who could work with them in treating diseases of metabolism. These people were offering a very good salary, would furnish a suite of rooms as the dietitian desired them to be furnished, were willing to get any necessary equipment for the kitchen, and were anxious to do everything possible to build up a dietary department which would be a part of the medical service.

Another man who is one of the members of the medical staff of a large hospital recently made this statement: "We do not want a dietitian such as is usually found in the hospital. We want a doctor of dietetics, and we are willing to pay for her."

It is plainly evident that progressive medical men are thoroughly alive to the fact that the feeding of their patients is just as important as any of the medical treatment, and must be done with the same care and intelligence.

Nurses have not been trained to this work, and herein lies another duty of the dietitian. It is a most common thing for one to hear a nurse or a physician say, "I did

not know that that food would be harmful for this patient," or, "I did not realize how many calories that would yield," etc. They should have someone to whom they can go for such information, and, on the other hand, they should be made to realize that this information is authentic.

Did one ever hear of a nurse asking a surgeon to change the nature of his operation because the patient preferred it otherwise, or request the medical man to give a different medicine because her patient did not like the one he prescribed? Yet, if her patient, who is being given a restricted diet for some specific disease, is served some food of which he is not particularly fond, she is far more apt to report to the kitchen that "my patient does not like this, and will not eat it," than she is to insist on the patient taking what is prescribed, as he does in the case of the other medical treatment.

Now, just what kind of a person shall we have in charge of our kitchen to do all of these things? In my opinion the dietitian should have jurisdiction over the entire commissary department. The work in the main kitchen and diet kitchen should fit together like dovetailing, and this cannot be done economically nor harmoniously unless there is someone who knows the work of both and has the viewpoint of both. If they do not work together, there will necessarily be useless repetition of work, duplicating of orders, need for extra supply cupboards, etc. If she has charge of the cooking and serving of all foods, she should also have authority over the buying of them. If she is responsible for the meals as served, she should certainly have control over all materials used and the people using them. Having this, she can immediately locate any defect in the system and remedy it. This, too, is an advantage to the administration, since only one person is responsible for the whole food problem, and, if anything needs readjusting, or if any information is needed to straighten out some difficulty, consultation with one person is sufficient.

So long as we have members of the human race who are being fed by someone else—whether it be nurses, doctors, or patients in a hospital, or girls in a boarding school, or any class of people in any walk of life whose meals are being prepared for them without any interest or effort at understanding on their part—just so long will we have people complaining of their food. Sometimes, when these complaints are made in a hospital, it is a great advantage to be able to take the matter up with one person and get at the source of trouble at once, thus deciding whether the complaint is a just one.

This would indicate that the person who is in charge of the commissary department must know foods—their commercial value as well as their nutritional value; she must know qualities, and it goes without saying that she must know quantities; she must know enough about cooking to know when foods are being properly prepared—i. e., that they are cooked so as to be most easily digested, that much of their nutritive value is not wasted in the cooking, that they are palatable; and she must be able to furnish a variety in ways of cooking foods in large quantities, as well as furnishing "well-balanced" meals. She must be constantly on the alert to prevent waste of food, as well as waste of time, by the employees; this necessitates the ability to know and follow up an infinite number of details; to forget even a minor thing said to her by someone whom she chances to meet in the corridor is an unpardonable offense if it results in a patient not getting just what he expected, just when he expected it, and just as he expected it. A well-established system is essential in order to insure meals being served promptly and in the best manner.

These are the things the dietitian must know in order to feed any and all parts of the house. In order to do scientific dietetic work she must know also the chemistry of foods, physiological chemistry, chemistry of nutrition, physiology of digestion, and the prominent symptoms of our most common diseases; she should know some physics, and it is highly desirable that she have some knowledge of psychology.

Where can she get this training? There are many schools in the country where she can get a foundational knowledge of domestic science, though she should have more work in physiology and its allied subjects than is given in most schools. There are a few schools now which are giving more thought to the needs of institutions, but the majority of them have until recently put all their thought and interest in the preparation of teachers. In no school, however, can the dietitian get the hospital angle of dietetics or the practical problems of feeding the sick. When our domestic science schools and hospitals cooperate, then will we be able to train dietitians well. In many cities we have schools giving very good instruction in domestic science and hospitals where much valuable practical work could be done. Great mutual benefit could be derived if a course could be planned wherein the nurses could get some of the valuable teachings of the school, and and it is highly desirable that she have some knowledge of diseases and the practical operation of the institution. At present the only available solution is the course of training offered to pupil dietitians in some of our hospitals, and this has by no means reached the stage of perfection.

A dietitian with a sound fundamental knowledge of domestic science and a physician with a broad medical knowledge may join forces and teach each other while developing a department of dietetics, and this is being done in some instances with much benefit to both parties as well as to the institution. Many of our metabolic diseases need just the treatment that this combined knowledge gives them. Though we have made many discoveries in the short time since scientific dietetic treatment has been practiced, and great advancement has been made in our studies of metabolism, yet we know we have only just begun to realize what a vast deal of undiscovered territory is before us and what an interesting and necessary field it is.

FREE INSTRUCTION IN INFECTIOUS DISEASES

New York Health Department Establishes Courses in the City's Largest Special Hospital

The health department of the city of New York has established a free course of instruction to the physicians of the city in diagnosis and treatment of the communicable diseases. The course, which is being given in the Willard Parker Hospital, consists of six clinical and two laboratory lessons, each course to be repeated every two weeks on Wednesday, Thursday, and Friday afternoons. The classes are limited to ten physicians, and those who desire to take the course are asked to register in advance.

The Willard Parker Hospital is the largest of New York's infectious disease institutions, and abundant clinical material is always on hand to insure a very valuable training for those physicians whose experience in the communicable diseases has been limited. The health department of the city has been making some quite rigid requirements in regard to reporting the communicable diseases, and it has finally discovered that disobedience of the laws by the doctors was due rather to want of experience in the diagnosis and treatment of these diseases than to any indifference or willful violation of the rules or ordinances; hence these courses of instructions.

PHILANTHROPY AND THE PUBLIC HEALTH

Conducted by THE NEW YORK ASSOCIATION FOR IMPROVING THE CONDITION OF THE POOR.
BAILEY B. BURRITT, General Director.
WILLIAM H. MATTHEWS, Director,
Department of Family Welfare.
DONALD B. ARMSTRONG, M. D., Director,
Department of Social Welfare.

Please address items of news and inquiries regarding Philanthropy and the Public Health to the New York Association for Improving the Condition of the Poor, 105 East Twenty-second street, New York City.

Clinics for Necessitous Children

BY J. H. BERKOWITZ

Between 1912 and 1915 the New York Health Department maintained six clinics for the treatment of school children requiring operations for diseased tonsils and adenoids. Owing to the failure to provide further in the department's budget for this work, the clinics have been discontinued. Thus a situation has resulted which lends a timely interest to the achievements of these clinics and to the question as to what other clinical provision the city of New York can make to supplement the work of private hospitals and dispensaries which offer gratuitous surgical and medical services to the needy. A discussion of these problems, based on studies and investigations made by the Bureau of Welfare of School Children of the New York Association for Improving the Condition of the Poor, has been published by the Health Department.[1]

The bureau made these investigations for the purpose of:

(a) Ascertaining the effectiveness of the school children's clinics as a part of the medical inspection system.

(b) Offering such constructive suggestions and aid to the municipal authorities as may appear to be necessary for the advancement of the work.

The report presents the following conclusions:

1. The clinics conducted by the Department of Health have demonstrated their usefulness in these respects:

(a) Thousands of children have been relieved of a serious defect which is not only physically devitalizing in its effect, but is also a cause of backwardness in school work.

(b) They have supplied a long-felt want in certain sections of the city where similar hospital facilities were and still are lacking.

(c) Children of needy parents have been given treatment and care which was beyond their financial means and which in the majority of cases would probably not have been obtained at any of the free dispensaries.

2. The efficiency and value of a system of school medical inspection is judged by:

(a) Ultimate results, as seen in the improvement of health conditions.

(b) The character of treatment for physical defects given to the children and extent of curative results.

The children's clinics have not only achieved such results, but at the same time have furnished the test for the system of medical inspection. This is to be found in the considerable increase in the number of cases treated and cured.

3. As a practical demonstration of approved humane, and safe practice, these clinics have been emulated by other institutions through the adoption of better methods, to-wit:

(a) Operations performed only with general anesthesia.

(b) Post-operative bed care for at least eighteen hours.

4. The closing of the Health Department clinics will cause an increase in the number of children applying at private hospitals and clinics. Some of these are adequately equipped for the treatment and care of children's nose and throat cases fully in accord with the higher standards of practice. Dispensaries and some hospitals do not fulfill these requirements.

The Executive Committee of the Associated Out-Patient Clinics of the City of New York, in a circular letter dated December 17, 1915, urges on its members "that suitable facilities be provided to meet this increased demand on them," and calls their attention to the opinion of the Section on Laryngology and Rhynology of the New York Academy of Medicine, one of the main points of which was:

"The majority of the members of the section believed that both tonsillectomy and tonsillotomy are operations requiring the facilities of a hospital."

The circular letter also calls attention to a resolution of the Public Health Committee of the New York Academy of Medicine, concurring in the conclusions resulting from an investigation made by the State Charities Aid Association, to-wit:

(a) That all adenoid and tonsil operations on children should be done under general anesthesia; and

(b) That hospitals where adenoid and tonsil operations are performed should be equipped to keep their patients in the wards for at least eighteen to twenty-four hours after operation.

In view of the preponderance of opinion among unquestionable authorities on what constitutes proper method and equipment for this work, it now becomes imperative that the school nurses should endeaver to refer all needy cases of children requiring such operations only to those clinics which are known to meet the foregoing requirements.

5. By the establishment of the school children's clinics the city recognized the principle that such facilities should be provided by the community for those requiring them, on the same basis that it provides free schooling.

6. Having thus acknowledged its obligation, the city should continue this work. It is of no consequence what branch or department in the municipal government is charged with it. The need of such special services for school children is urgent.

The Health Department being now relieved of this function, it might be delegated to either of these departments: Charities, Education, Hospitals. The lack of facilities and conveniences for hospital work in school buildings excludes the Department of Education from consideration. Therefore the remaining possibilities are the Charities Department and Bellevue and Allied Hospitals. Altogether, seven municipal hospitals offer possibilities.

The Bureau of Welfare of School Children has made

[1]Free Municipal Clinics for School Children: A Review of the Work of the School Children's Nose and Throat Clinics in New York City and Conditions Which Necessitate Such Institutions. Department of Health of the City of New York. No. 41, Reprint Series, February, 1916.

recommendations to the proper authorities, embodying the foregoing conclusions.

An outcome of the interest of the bureau in this work is the appointment by the health commissioner, Dr. Haven Emerson, of a committee consisting of Dr. John W. Brannan, chairman, Deputy Charities Commissioner Henry C. Wright, Dr. John J. Cronin, Dr. Cornelius G. Coakley, Dr. E. H. Lewinski-Corwin, and Edward F. Brown, secretary, the purpose of which is to stimulate an interest in the enlargement of the facilities in public and private hospitals for approved treatment of nose and throat defects.



Fig. 1. Case of defective nasal breathing and hypertrophied tonsils, typical of about 10 percent of school children examined for physical defects. Probably half of these are too poor to afford private medical service.

An immediate result of this committee's efforts has been the extension of the nose and throat service at Bellevue and Allied Hospitals—Gouverneur, Harlem, Fordham—four in all, and the bringing about of closer cooperation between school nurses and these municipal hospitals for the benefit of school children too poor to patronize private physicians or pay clinics. Without such cooperation many of these patients would find their way to dispensaries having neither the proper facilities nor employing approved methods for this class of cases.

WORK OF THE CHILDREN'S CLINICS

The investigations of the Bureau of Welfare of School Children included a study of 1,677 case histories in the Health Department clinics, from which the following statistical analysis was derived:

(a) DIAGNOSIS AND DISPOSITION.—The clinical examinations verify the diagnoses made by the medical inspectors, as will be seen from table 1. Of the children examined by the surgeons, 95.8 percent were found to be in need of treatment. This fact is further strengthened by the results shown in table 2, to-wit: that 94.1 percent of the cases needing treatment required surgical operation.

These records are also significant in demonstrating the coincidence of the two defects, hypertrophied tonsils and adenoids, since 81.7 percent of the children needing treatment were found to be suffering from both of these defects, while 7.7 percent were found with adenoids only, and but 0.9 percent with hypertrophied tonsils only.

TABLE 1. RESULT OF CLINICAL EXAMINATIONS

	Number	Percent of all children examined
Children examined	1,677	100.
Needing treatment	1,605	95.8
Defects found:		
Hypertrophied tonsils and adenoids	1,370	81.7
Adenoids only	129	7.7
Tonsils only	15	.9
Very slight adenoid growth	91	5.4
Normal	72	4.3

With 94.1 percent of the cases found in need of operation, of the 1,605 cases needing treatment, it is appalling to imagine what the consequences of neglect would be if clinical facilities were not provided for the removal of these serious defects.

TABLE 2. CHARACTER OF TREATMENT REQUIRED

	Number	Percent of all needing treatment
Cases needing treatment	1,605	100.
Operative	1,514	94.1
Nonoperative	91	5.9

The actual operations performed in the clinics studied were 79.4 of the total number of cases needing treatment, the remainder being variously disposed of, as shown in tables 3 and 4. It is interesting to note that only 16 cases out of the 1,605, or 1 percent, were referred to private physicians. This means that inquiry by the school nurses showed these applicants to be in a position to afford the services of private physicians. It does not, however, follow that all these applicants wished to receive free treatment without being entitled to it. In some cases parents sent their children to these clinics through misunderstanding. The dropped cases fall into two groups—(1) those in which the children failed to keep their appointments,

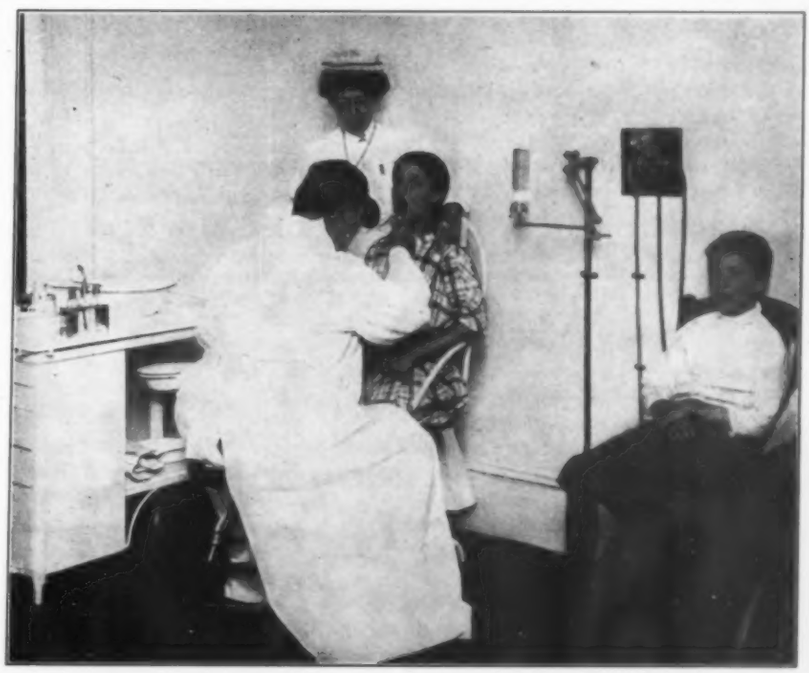


Fig. 2. Examination by nose and throat surgeon in school children's clinic.

and (2) those eliminated for various unstated reasons. Both these classes of dropped cases reach a considerable percentage, as will be seen from tables 3 and 4.

TABLE 3. DISPOSITION OF CASES NEEDING TREATMENT

	Number	Percent of all needing treatment
Cases needing treatment	1,605	100.
Operations performed	1,141	79.4
Medical treatment	62	3.9
Referred to private physician	16	1.
Not terminated	34	2.
Dropped	220	13.7

TABLE 4. DISPOSITION OF OPERATIVE CASES

	Number	Percent
Cases requiring operation	1,514	100.
Operations performed	1,141	76.5
Referred to private physician	16	1.0
Operation refused by patient	46	2.1
Appointment not kept	153	10.0
"Operated elsewhere"	7	.4
Dropped for various reasons	151	10.0

(b) DURATION OF TREATMENT.—Under this head is considered the length of time intervening between the child's first visit to the clinic and the date of his discharge. It is the rule to make the appointment for operation, if possible, within a week from the day of registration at the clinic, although the extremes reached are one day in one direction and two months in the other. The average duration is nine days.

Twenty-four hours is the usual length of time spent in the clinic by a child who has undergone an operation. Not more than 10 cases were found where this stay has exceeded twenty-four hours. Practically all discharged cases are marked "cured" on the case record cards, in the majority of cases the success of the operation being determined by an examination on the day of discharge. In some cases it has been found necessary to have the patient reexamined at a later date, and the results of these final examinations all appear as "O. K." in the records. In all, 105, or 9.2 percent, final examinations have been made subsequent to day of discharge.

TABLE 5. NUMBER AND PERCENT OF FINAL EXAMINATIONS AND CASES FOUND "O. K." AFTER OPERATION

	Number	Percent Operated	Percent Examined
Operated	1,141	100.	...
Final examinations	105	9.2	100
Pronounced "O. K."	105	9.2	100

The lapse of time between discharge and final examination averaged three days.

TABLE 6. NUMBER OF DAYS BETWEEN DISCHARGE AND FINAL EXAMINATION OF 105 OPERATED PATIENTS

Days	1	2	3	4	5	7	10	11	12	31
Patients	12	45	7	31	5	2	1	2	1	1

(c) DISTANCES TRAVELED.—Accessibility is one of the deciding factors in the serviceability of the free clinic. To be accessible to the necessitous child, the clinic must needs be within walking distance from home or school, thus eliminating the expenditure of money for carfare. This renders the clinic a neighborhood institution, as shown by the computations based on 1,440 cases where the distance traveled was determinable. Allowing one mile as a reasonable distance for a normal child to walk, it would appear that not quite half (47.6) of the children coming to the clinics live within a radius of one mile from it. On the other hand, adding to the number of children within the one-mile limit those coming from a distance of two miles or less, the result shows that more than two-thirds (78 percent) of the children came from within the two-mile zone.

The number of those coming from distances within four or five miles is still considerable. Beyond the five-mile zone the numbers become trivial, yet not insignificant, if they are taken as an indication of preference for these clinics by people living beyond these "neighborhood" areas. The average distance of travel for the 1,440 cases is exactly two miles.

TABLE 7. DISTANCES TRAVELED BY CHILDREN FROM SCHOOL TO CLINIC

Within miles	Number of children	Percent of total 1,440 cases
1	655	47.6
2	459	35.1
3	151	10.5
4	104	7.2
5	16	1.0
6	8	....
7	3	....
8	1	....
9	2	....
10	1	....

To summarize, the foregoing data establishes these vital facts:

(a) Medical inspectors make correct diagnoses in all but a very small percentage of cases. When examined by the surgeons, 95.7 percent of the children referred to the clinics were found to be in need of treatment.

(b) Nearly all children suffering from defective nasal breathing and hypertrophied tonsils require operation. In this group 94.1 percent did.

(c) The "neighborhood" character of the clinics is indicated by the fact that nearly half the number of the children treated came from within one mile of the clinics, while the total percentage of those coming from within one and two miles is 82.7 percent.

(d) The need of extensive following up is shown by the fact that 20 percent of the children registered for operations failed to receive them, while less than 10 percent of those operated on were reexamined at a later date. In this may be seen a shortcoming in cooperation between schools and clinics.

Mount Sinai to Become a General Hospital

Definite plans for the further expansion of Mount Sinai into a general hospital have been submitted and the construction is under way, the present extension bringing the hospital plant into proper proportion in order to take care of all recognized branches of medicine and surgery.

The plan includes the contruction of new buildings, with equipment, to cost $1,800,000. Actual work has been started on the pavilion to be known as the "Guggenheim Memorial," and also on a pathological laboratory and a modern servants' dormitory.

Serious consideration is being given to the construction of a new children's hospital, as well as alterations in the present children's pavilion, in order to convert the latter into a semi-private ward.

Due to the increased activities of the hospital, many of the clinical departments are greatly in need of room to accommodate the installation of special equipment necessary to bring the institution to the highest standards. The present architectural activities are of sufficient extent and arrangement to provide accommodation for all special departments and to place Mount Sinai on a plane with the leading institutions in this country.

DISPENSARY AND OUT-PATIENT WORK

Conducted by MICHAEL M. DAVIS, Jr.,
Director of the Boston Dispensary.

Please address items of news and inquiries regarding Dispensary and Out-Patient Work to the editor of this department, 25 Bennett street, Boston, Mass.

How to Make a Dispensary Efficient

In the business world, under the stimulus of financial profit, efficiency has been made a watchword. How sad to think that efficiency has been so little considered in the field of philanthropy, where the only gain is the pure reward of virtue!

Let every medical and lay worker in a dispensary hereafter clasp efficiency to his bosom! In the belief that such will soon be the general habit, the following suggestions are offered for the consideration of all interested in this vital subject.

One of the great problems which confronts every large dispensary is the prompt and proper classification and registration of patients. For registration, institutions today depend on the laborious eliciting of identifying information by verbal conversation, while for conveying each patient promptly to his or her clinic, through a strange and often tortuous building, dependence is placed solely on transportation by the patient's personal legs. How remarkable in the second decade of the twentieth century, when moving sidewalks, pneumatic tubes, and finger-print systems are at the beck and call of the world, that the dispensary, that star or starfish among institutions, should depend on mere legs and letters!

Let us change all this and bring the moving stairway and finger-print system to the forefront in every dispensary. As each applicant for treatment enters the door, a trained, courteous usher should meet him or her with the inquiry, "Please show your card." If a card is not shown, the fact that the applicant is a new patient is thus indicated, and the patient is expeditiously and softly placed upon a moving stairway on the usher's left side, ladies being handled with white gloves. With old patients, on the other hand, who are already familiar with the routine, a mere wave of the usher's forefinger[1] will serve to locate them upon the moving stairway at his right. These stairways should not, as in those crude structures found in some mercantile enterprises, be merely for standees. Chairs should be provided, and, as will be shown, this will be a substantial economy in administration.

One of the great purposes of the moving stairway, but not its only service, is the transportation of all the human material of the dispensary—namely, the patients—to the uppermost story. In a manufacturing establishment of large size the raw material is brought first to the top floor, so that thereafter all its motions are aided instead of impeded by gravity, until it passes out at the ground floor as a finished product. Why not apply efficiency principles to patients, human beings capable of appreciating what is done for them?

As the new patients comfortably leave the ground floor, a finger-print clerk steps on the stairway. Passing from one patient's chair to another, he causes each patient to impress upon appropriate cards his finger-prints in duplicate, the cards being then placed upon the right-hand arm of the chair. The moving stairway proceeds with measured deliberation, calculated to allow this task to be performed by the time that the patients reach the second story. At this point the finger-print clerk steps off, and, sliding down a fireman's pole, is ready to ascend again with the next batch of newcomers.

On the second floor a social worker steps to the moving platform and passes likewise from patient to patient, observing, with the aid of a spotlight, the garments, the amount of dignity and millinery or furs of each patient, along with those other indications by which trained social workers are accustomed to judge financial eligibility. A question or two may also be asked, as the speed of the moving stairway is adjusted so as to enable an efficient worker to complete her task by the time the last patient in her batch has reached the third story.

It is apparent, we may say, that the number of stories of a dispensary and the height of each story may be suitably designed according to the number of patients which are expected to be received. This is an important principle of construction.

On the third floor, the social worker having returned to the second floor by the chute, a medical admitting officer steps upon the stairway, and rapidly assigns each patient to the appropriate clinic after a glance at the symptoms. The patient's cards, which during this time have remained upon the arm of his chair, are quickly marked by the admitting officer before they reach the fourth story. Then the officer slides swiftly back to the third floor, to begin again his efficient round.

When the new patient has reached the fourth floor, he steps into the large admission hall, where nothing remains to be done but to receive his fee, give him one of the two admission cards, retain the duplicate, and send the patient speedily on his downward way to the clinic which awaits him.

Meanwhile the old patients have come up their stairway, which may move at a quicker and more exhilarating rate. On the fourth floor they show their identification cards, received at previous visits. These are instantly identified by the finger-print expert. The medical record is extracted from the files and sent to the proper clinic by pneumatic tube, thus arriving sufficiently in advance of the patient to serve as a pleasant notice of his approach.

The economy and efficiency of this plan are so evident as to disarm comment. It is obvious that nothing is required to install this system except a moving stairway, an expert in the Bertillon finger-print system and a little printer's ink.

A slight consideration of the mechanical aspect of the matter, however, shows that the maximum economy cannot be attained if the engine which operates the stairway must lift the dead weight of many patients and administrative officers while the downward-moving stairs are left vacant. Were the up and down weights properly balanced, far less power would be required. The system at this point requires the addition of a little ingenuity. The following method would yield both medical and financial benefits.

The important problem of reducing flesh has already led to the establishment of "obesity classes" in many clinics. The members of such clinics or classes should be

[1] An usher with some experience as a traffic policeman might be employed with advantage.

assigned their treatment rooms upon the topmost story, not far from the admission hall in which the patients leave the stairways. As soon as the obesity patients have been seen at their clinic (they should come early), each should promptly be given a ride *down* the moving stair. It is evident that one patient of this group would on the average balance at least two and one-third of the ill, lean, or young persons, who constitute the great majority of the sick poor. The obesity patients should, of course, be compelled to walk back upstairs. Not more than three to seven round trips a morning should be necessary. The pleasure of the downward trip and the exercise of the return journey would undoubtedly contribute to the medical treatment which they are receiving.

Should the number of patients in the obesity clinic of any dispensary be too small to give sufficient balancing power, selected children of school age may be given the privilege of riding downstairs, two to a chair, as a reward for their visit to the doctor or dentist. In some clinics it would be practicable to charge a small fee for this pleasant ride down the dispensary's roller-coaster, thus assuring to the institution a modest but worthy source of income.

NEW $400,000 HOSPITAL FOR CALIFORNIA COUNTY

Modern Plant to Accommodate 250 Patients Being Erected at Sacramento

Plans drawn by Architect R. A. Herold for a new public hospital for Sacramento county, Cal., to be erected at Sacramento at a cost of $400,000, exclusive of equipment, have been approved by the board of county supervisors and construction work is under way.

In a general way, the plans for the new hospital call for an administration building, a nurses' home, six general wards, an infectious ward, a service building, garage, laundry, and lighting and power plant. Two hundred and fifty patients will be accommodated.

A style of architecture typical of California has been adopted, and the buildings will be so arranged that the nearest neighbors will be at least 200 feet from any building. A rather elaborate system of beautifying the grounds, which will include a sunken garden facing the administration building, with a driveway from the main thoroughfare on either side, has been devised. The administration building and all of the wards will be connected by tunnels and corridors.

The exterior construction will be tile and concrete, with roofs laid with mission tile. The floors will be of reinforced concrete and the interior partitions of metal studs, laths, and plaster.

The mechanical plans include complete electrical layout, such as an electric signal system for nurses and latest improved elevators and dumb-waiters, modern heating and ventilating systems, vacuum cleaners, and the best hospital sanitary plumbing.

The operating rooms, sink rooms, baths, and toilets are to have tile floors and glass wainscoting, and the interior finish throughout the buildings will meet all sanitary requirements.

In laying out the ground plan, provisions have been made for the enlargement of the plant as may be required in the future.

Dr. Louise Richmond has resigned the superintendency of the Methodist Hospital at Hutchinson, Kas., and will engage in the practice of medicine with her husband, Dr. D. W. Richmond. Miss Frances Shouse, a Missouri nurse, is the new superintendent at the Methodist Hospital.

SOCIAL HYGIENE
VENEREAL DISEASES

Conducted by WILLIAM F. SNOW, M. D.,
General Secretary, The American Social Hygiene Association.

Please address items of news and inquiries regarding Social Hygiene to the editor of this department, 105 West Fortieth street, New York City.

Venereal Disease Quack and Sex Medicine Makers[1]

The Oregon Supreme Court has upheld the law forbidding the advertising of sex medicines, which makes it a misdemeanor for any person "to advertise or publish any advertisement intended to imply or to be understood that he will restore manly vigor, treat or cure loss of manhood, lost power, stricture, gonorrhea, chronic discharges, gleet, varicocele, or syphilis, or any person who shall advertise any medicine, medicinal preparation, remedy or prescription for any of the ailments or diseases enumerated in this act." On May 14, 1914, an indictment was filed against Edwin A. Hollinshead and Irving R. Stearns, for violating this statute. The advertisement exhibited was as follows:

> NEW DISCOVERY FOR MEN, can be used secretly any place. ZIT COMPLETE STEARNS', $3 postpaid. Plain Wrapper. Written Guarantee to cure most severe cases of GONORRHEA or GLEET, if directions are completely followed, or MONEY BACK. ONLY QUICK, SAFE REMEDY. NOT AN INJECTION. STRICTURE IMPOSSIBLE. No Pain or Bad Taste. Complete directions given with each package. BY OUR ONE EXCLUSIVE AGENT.
>
> THE J. A. CLEMENSON DRUG CO.,
> Cor. Front and Morrison Sts.,
> PORTLAND, OREGON.
> Spell it out Z-I-T.

After the court had overruled a demurrer to the indictment, the defendants were convicted and fined $100. The decision of the Supreme Court on the appeal of the case was in part as follows:

The next point presented is that the act is unconstitutional and void in that it is class legislation and is a violation of the constitutional guarantee of equal protection of the law. This may well be considered in connection with the final proposition that the act is void because it is not within the legitimate scope of the police power of the state and is a violation of the constitutional provision that no person shall be deprived of life, liberty, or property without due process of law.

For many years it has been recognized by publicists and legislators that some drastic action is necessary to check certain social evils, and to protect youthful and inexperienced humanity not only from easy access to vicious and immoral practices, but also from the schemes of designing men, who, for the sake of financial profit, would prey on the calamities of the unfortunate who have sowed the wind and reaped the whirlwind. Further than this, it has been thought that the act of spreading broadcast, by means of advertising, the idea that certain venereal diseases are easily and cheaply cured is against public policy in that it has a decided tendency to minimize unduly the disastrous consequences of indulging in dissolute action. These views were evidently the moving principle of our legislators in the passage of the act under discussion. The purpose of the act is clearly in the interest of the public

[1]The illustrations accompanying this article are presented by courtesy of the Oregon Social Hygiene Society.



Fig. 1. The sort of advertising that has disappeared in Oregon.

morals. It is not class legislation, for it applies to all who may be engaged in a like business. Similar legislation has been held valid in other states on both contentions. In the case of People v. Kennedy (Mich.), 142 N. W. 771, the court, in passing on a similar statute, says: "It is the duty of the court to give effect to a legitimate legislative purpose plainly indicated if it can reasonably be done, and not construe language so as to invalidate an act where the language is fairly susceptible of a construction consistent with validity. The act appears to be a reasonable police regulation."

Again, in the case of Kennedy v. State Board of Registration, 145 Mich. 241, the plaintiff, a physician, sought to enjoin the defendant from revoking his certificate for having violated a statute which, in part, reads thus: "And provided further, after the passage of this act the board may at its discretion revoke the certificate of registration, after due notice and hearing, of any registered practitioner who inserts any advertisement in any newspaper, pamphlet, circular, or other written or printed paper relative to venereal diseases or other matter of any obscene or offensive nature derogatory to good morals."

This was held to be a valid exercise of police power. In the case of State v. Giantvalley, 143 N. W. 780, Mr. Justice Bunn, of the Supreme Court of Minnesota, says: "It is argued that, because defendant was admitted to the bar of Minnesota before the statute was enacted, the law deprived him of a vested right to advertise that he was a specialist in divorce matters, and is therefore unconstitutional. Granting that defendant's license to practice his profession gave him a right to advertise his proficiency in any branch of it, such right was subject to regulation. The legislature decided that advertising for divorce business was contrary to public policy, and certainly the decision was justified. Rights of property far more valuable than any right defendant may have had to advertise his calling have been obliged to yield to considerations of public health, safety, and morals. We hold that the statute is valid."

We might multiply similar citations, but it is not necessary. We regard the statute in question as a valid exercise of the police power of the state, and the judgment of the trial court is affirmed.

This decision of the Supreme Court may well be looked on as the decisive victory in the contest that has been going on in Oregon for some five years against medical quackery in all its forms, and especially against the exploiters of alleged venereal disease cures. The early stages of the campaign were marked by strong local agitation at first in Portland and later in other cities of the state to influence newspapers to discontinue the publication of advertisements of medical specialists of all sorts. At a public meeting in Portland in 1912 the case against the quack was strongly presented by President William T. Foster, of Reed College, particularly with reference to a case in which an unfortunate victim, after being fleeced out of his savings, had killed two of a venereal institute's staff as well as himself, with the result that several of the more influential newspapers of that city adopted the policy of excluding such advertising from their columns, though this action involved a loss of many thousands of dollars of revenue to them. The campaign of education went on throughout the state until, in September, 1914, the Social Hygiene Society reported: "There are now no regular 'quack ads' published in any newspaper in the state of Oregon. One paper prints a small announcement of one quack in its personal column. The two or three who advertise on their windows and walls are compelled to announce cures for various diseases of both sexes because of the new law. There are no quack advertisements of men's specialists in the state."

In the meantime, by order of the State Board of Health, there was published a placard calling to the attention of men the seriousness of venereal diseases, and framed copies were posted in the places used for similar advertising by medical specialists, including the toilet rooms of railroad stations and day coaches. An advisory department was also established to provide reliable information and advice by personal interviews or by correspondence to persons suffering from venereal diseases. By these means, and by the society's circulars and cards of information, the direct attack on quack practitioners was supplemented and strengthened by spreading abroad the truth about these diseases and by giving sound advice



Fig. 2. The old and the new. The illustration on the right is a State Board of Health placard; the one on the left is a notice of a kind often found in men's toilet rooms, but not in Oregon.

free of charge as to the necessity of proper treatment.

In 1913 the state law which had made possible the prosecution of fraudulent medical concerns was strengthened by the passage of an act by the state Legislature specifically directed against the advertising of sex medicines. The text of this law is as follows:

Sec. 2095. Any person who shall advertise or publish any advertisement intended to imply or to be understood that he will restore manly vigor, treat or cure lost manhood, lost power, stricture, gonorrhea, chronic discharges, gleet, varicocele or syphilis, or any person who shall advertise any medicine, medicinal preparation, remedy or prescription for any of the ailments or diseases enumerated in this act shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punished by a fine of not less than $100 nor more than $1,000, or by imprisonment in the county jail for a period of not less than six months nor more than twelve months, or by both such fine and imprisonment. Any owner or managing officer of any newspaper in whose paper shall be printed or published any such advertisement as is described in this act shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punished by a fine of not less than $100 nor more than $1,000, or by imprisonment in the county jail for a period of not less than six months, or by both such fine and imprisonment.

It is on this law that the decision quoted above was rendered. Oregon's success in ridding itself of the advertising quack is indicative of a state of public sentiment awakened by publicity and education the like of which has been aroused locally in several cities, though not to the point of securing statewide results.

In New York city no daily paper printed in English now admits the advertising of the venereal disease quack, and in Chicago, thanks to the activity of the *Tribune*, such advertising has practically disappeared, along with the most of the venereal quacks. The more reputable papers the country over have taken a like stand—for example, the St. Louis *Star*, the New Orleans *Item*, the Seattle *Sun*, and the Minneapolis *Journal*. New York city in the spring of 1915 closed up all of its "medical museums," "museums of anatomy," and the like, together with their accompanying "medical institutes."

The fight against the makers and purveyors of venereal disease patent medicines is a more difficult one than that against the quack doctors, but through the attack on their advertising, on which the extent of their business almost entirely depends, other states may accomplish what Oregon has done. On this point Mr. Samuel Hopkins Adams, in an address before the Society of Sanitary and Moral



Fig. 3. Four pages of the Police Gazette as issued in the Oregon and regular edition.

Prophylaxis in New York city, said: "If any combination can be made of great business and social organizations, of great newspapers and of men whose business it is to live by advertising and whose honor it is to keep that a clean, decent profession, I believe that any city could be cleared of venereal quackery."

While the direct results of driving the quacks out of business and curbing the activities of the sex medicine makers are beyond measure for the good of their individual dupes and victims, there are indirect benefits of even greater and wider reaching effects confidently to be looked for. Every city or state that drives out from its newspapers and other places the advertising of the quack and sex medicine man, to that extent eliminates a source of positive misinformation, a debasing and misleading sex pedagogy. In this way aid is given to constructive work of social hygiene, by giving its educational agencies access to a public, perhaps uneducated, but, so far as quacks and sex medicine makers are concerned, not miseducated.

J. H. F.

CALIFORNIA URGES TUBERCULOSIS BILL

Proposed Federal Law Providing for Subsidy for Care of Nonresidents Greatly Needed

The California State Board of Health has indorsed the federal bill which will provide for the payment of a subsidy to hospitals maintaining standards of equipment, diet, and care established by the United States Public Health Service, and caring for tuberculosis patients who are not legal residents of California.

This action was prompted in view of the following facts: the death rate from tuberculosis in California and other southwestern states is very large, reaching, for example, the rate of 362.5 per 100,000 population in one county of the state, and a corresponding rate of 192.5 for the state as a whole; this high death rate is largely due to the influx, from all parts of the country, of tuberculosis patients, who are, for the main part, in advanced stages of the disease and financially unable to provide proper care for themselves, and, moreover, unable to exercise proper precautions to prevent others from becoming infected; 75 percent of the patients dying of tuberculosis in California have an annual family income of less than $1,000; furthermore, 27 percent of all children who have received state aid as orphans or half orphans during 1914 lost one or both parents from tuberculosis. There are only 906 beds available for tuberculosis patients in county hospitals, and the average yearly numbers of deaths is over 5,000. The counties cannot bear alone the double burden of caring for the resident and nonresident tuberculous, even with the recently provided state aid for the former. Recent investigations by the United States Public Health service show that there is an annual migration of between 10,000 and 15,000 tuberculosis patients to the western and southwestern states, and 30 to 50 percent of these die within six months of their arrival, and, further, that 40 to 90 percent of all deaths from tuberculosis in the west and southwest are natives of other states.

In the March number of THE MODERN HOSPITAL it was erroneously reported that the Alexandria Hospital, Alexandria, Va., had recently installed a new x-ray outfit and a Columbia treatment transformer. It is the Alexandria Hospital, conducted by Dr. L. F. Schmauss at Alexandria, Ind., which has made these improvements, but it is the Virginia institution for which the $50,000 building is to be erected.

INSTITUTION LIBRARIES

Conducted by E. KATHLEEN JONES.
Librarian McLean Hospital, Waverly, Mass.; member Institutiona Libraries Committee, American Library Association.

Please address items of news and inquiries regarding Institution Libraries to the editor of this department, McLean Hospital, Waverly, Mass.

Book Reviews

The hospital library censor sat in her office surrounded by some twenty books of new fiction, of which eight or ten already had been discarded and none retained for the library. Of the discarded ones, some were morbid, some were cheap and trashy, some were merely "cheerful" to the verge of boredom; one or two were, to put it mildly, unreserved. With a sigh that a perfectly nice mid-Victorian mind should be obliged to dabble in the analytics of decadent modern literature, the censor put forth a languid hand for the next in order.

It happened to be "Drusilla With a Million," by Elizabeth Cooper, a modern fairy story for grown-ups, with an old lady instead of a young one for the princess—an old lady suddenly transplanted from the "Home with a big H," where she was the penniless and overworked drudge, to a beautiful mansion of which she was absolute mistress, with servants at her command and a million dollars at her disposal. This promised to be interesting, and with increasing delight the censor read it, approved, and began with it her pile "for keeps."

Refreshed by this wholesome, if slight, little story, she took up "The Boy With Wings," by Mrs. Oliver Onions. This is a pretty little love story of a boy aviator and his girl bride, somewhat marred by padding, but with an ideal ending, if one believes the old pagan saying that "Whom the gods love die young." It is not a sad ending, and it is the only one possible for happiness. This made two books for the library.

The next was "The Real Adventure," by Henry Kitchell Webster, of which the censor had seen a very cordial review. She did not stop until she had finished the book, but she cannot recommend it for a hospital, for it would arouse too much criticism. In the first place, it is exceedingly modern, even boasting an alienist with Freudian theories and other tremendously clever people who talk of all the latest "isms" and settle the most bewildering questions with the utmost confidence. In the second place, it is too frankly analytical. In the third, it is too thoroughly exasperating, in spite of its undeniable interest, for it doesn't get anywhere. In the end they are just where they were in the beginning—still "short-circuited." The story, in brief, is this: The girl wife runs away from the husband whom she adores and who adores her, because he won't talk business to her and won't let her take care of her twin babies herself, feeling that they are safer with a trained nurse. She purposes to fit herself for life, and

in the last sentence of the book she stands, presumably fitted, "holding a twin in each capable and highly trained hand." Now, the censor would like to know what in her two years of ballet dancing and designing of stage costumes she learned that would enable her to compete successfully with the trained nurse in the care of twins? However, it was with very genuine regret that it was rejected.

The Coast of Adventure," by Bindloss, added a third to the library pile. This is a fairly good story of adventure, in which the heroes smuggle arms to a Central American republic on the verge of a revolution.

Then came some more for the rejected pile, including one which opened well. But in the second chapter a nurse suddenly goes insane and kidnaps a child. We are here introduced into an "insane asylum," with its stereotyped inhabitants. With all due respect to authors, we who have lived among the insane for years suggest that these authors, if they must write about such subjects, be incarcerated in such a hospital (by the way, they haven't been called asylums for years) for a time, so they will know how the insane really do talk and act. There is just one novel known to the censor dealing with this subject which is true to life, and that is "The Lunatic at Large," published in 1905 by J. S. Clouston, son of the celebrated English alienist. This is an extremely clever and amusing story of the adventures of a patient who had forgotten his identity, and who escapes from the hospital while in a slightly hypermanic state. It is needless to say that this is not a book for patients in a mental hospital, but others will enjoy it exceedingly.

Have you an "Index Expurgatorius" for the use of the staff only? If so, place in it "Those About Trench," by Edwin Herbert Lewis, for a more entertaining book the censor has not read for a long while. True, it is crude in many ways, and it really is composed of two separate stories which have little to do with each other, but it is a book you cannot leave until you finish it. Trench is a young Chicago physician, a specialist in children's diseases, who is thoroughly material in his views of life, impregnated with all the modern scientific ideas of religion. The frankness with which these views are discussed constitutes the great reason why patients with a mental bias should not read it, for they will be apt to seize on these ideas and distort them to an injurious degree, not realizing how, in the end, Trench himself, as well as those about him, grow out of these impersonal, materialistic views into something more human and more divine. Also, some of the surgical operations are described rather too vividly to please patients in any hospital. Still, all this is in what might be called the author's first manner. Trench gathers round him a "menagerie" of aliens, the center of whom is Saadi Sareef, a most likable young rascal who soon usurps the center of the stage, and here begins the second story, in which we follow the fortunes of Saadi from Peshawar in India (where you feel that you are threading the mountain passes with Kim) to the breathless end in the Balkans. It is a book that stands head and shoulders above the average.

The censor laid "John Bogardus" on the pile "for keeps," with a sigh of satisfaction and great content. This is a big book—a very human document, to use a much overworked phrase—but John Bogardus is human, and, were one to write pages about him, there is no greater one word which so fittingly describes him and the book. There is humor in this book, and pathos, and growth, and strength, and humanity; above all, humanity. We look forward to more books by Mr. Chamberlain as good as this one.

Traveling Libraries in Hospitals

BY MIRIAM E. CAREY,
Supervisor of Institution Libraries, Minnesota State Board of Control, St. Paul, Minn.

Systems of traveling libraries have been operated in the rural districts of this country for many years by library organizations of various sorts, and the results of their experience can be used as guides by those who wish to introduce traveling libraries into hospitals and other institutions in which reside large numbers of persons, many of whom would be glad to have something to read.

In hospitals for the insane there is always a group of patients who like to read and who exhaust the collection of books in the library before they leave the institution. These patients often see the book reviews and advertisements in the magazines; their curiosity is aroused about certain publications, and they want to read the new books just as much as any other person. One way to satisfy this demand is by means of traveling libraries operated from some central point.

The practicability of such a system has been tried out in the state of Minnesota, which has a circuit of five libraries going the rounds of the institutions for the insane. This year (1916) sees the third series of these collections in operation, so that the scheme has ceased to be an experiment.

When the first set of libraries was started, each of the five institutions interested subscribed $25, and the combined sum was spent for 125 volumes and the cases needed to transport them. Each library remained one month at each hospital, and on a given date was shipped to the next place in the circuit. At the end of six months each institution kept the books received in the last exchange, and sent the empty boxes back to headquarters. These boxes were filled with new sets of books, and were started out to make the same rounds as the first series. This method is still in operation, and by it each hospital has the opportunity to examine 125 fresh books every six months and to add 50 books a year to its present collection.

Good team work at each hospital is absolutely necessary to make a plan like this work smoothly, and in Minnesota it has cheerfully been rendered by the several persons in charge of the libraries at the various hospitals. On them devolves the task of rounding up the books at the proper times, and in a large hospital this is a rather difficult thing to do, making it very necessary to have a good charging system of book-cards and book-pockets in operation.

When the date occurs for changing the libraries, someone at headquarters (in Minnesota it is the library supervisor) sends to each of the librarians a list of the next set of books to be received, a shipping tag for use on the box to be sent away, a return post-card by which the receipt of the new library and its condition is to be acknowledged, and a note stating the date of shipping.

If it happens in some hospital that one or two books are not returned promptly, the library is shipped without them. If they are found within a week or ten days, they are sent on by parcel post, but, later than that, the institution at which they were lost buys new copies, which are put into the proper libraries in order to keep the series intact. It usually occurs that after many days the mislaid books reappear, and they are then added to the permanent library of the hospital which lost and replaced them. It is to be expected that there will be some loss through the actions of destructive patients, but this should be regarded as part of the business and should not debar the use of books by the other patients.

Books coming in this way at regular intervals from the

outside world are attractive to the whole hospital; not only the patients, but also the employees, look forward eagerly to the exchanges.

As the purpose of the hospital traveling library is to provide recreation and change of thought, the books are selected with no other object in view. The collections are not educational, except incidentally, nor of special literary value; they are made up almost entirely of fiction, with any popular books on the questions of the day which may be available and a few purely humorous books, which are always well liked by some of the patients. Editions are chosen, so far as is financially possible, for good print and paper, illustrations, and attractive and serviceable bindings.

As to size and construction of the traveling library cases, there is now a standard, and the number of books in each unit has also been established; it has been found best to send groups of 25 or 50 volumes in boxes made to accommodate exactly that number. The outside dimensions of the smaller cases are 28 by 10 inches, with a depth of 12 inches. For convenience in carrying, these cases have stout iron handles on both ends, and in front there are doors which are kept securely closed during transit by a bar of iron which slips into clamps. These boxes can be transported by freight or express without crating, and can be used as bookcases after the bar is removed and the doors are opened.

Anyone who wishes to see lists of the books which have circulated in the Minnesota hospitals can have them by sending a request to the Minnesota State Board of Control, St. Paul, Minn.

Notes of the Libraries

In his report of the Central Indiana Hospital for Insane, 1915, Dr. Edenharter writes as follows: "At an institution of this character, one of the chief problems is to provide the means to direct the attention and divert the thoughts of patients into channels calculated to relieve their condition. . . . Occupation as a remedial agent is utilized whenever the circumstances permit. In addition to this and the amusements, it is necessary to provide appropriate reading material—not only books and magazines, but daily and weekly newspapers. To meet this need, the institution has installed a circulating library of over 2,000 volumes, to which new and well-selected books are added as occasion demands. The library record is an evidence that it is well patronized and appreciated. The employees have access to its volumes."

* * *

The superintendent of the general hospital at Olean, N. Y., has asked Miss Maud D. Brooks, librarian of the Olean Public Library, to give a talk to the training class of nurses on books and reading.

* * *

From the Public Library of Cadillac, Mich., and from the City Library Association of Springfield, Mass., have come lists of "cheerful books" which these two libraries have prepared because of the constant demand for books for the sick room.

* * *

In the American Medical Association Bulletin for November 15, 1915, is a most interesting account of the Luzerne County (Wilkes-Barre, Pa.) Medical Library, founded in 1897 in two rooms, now owning 5,800 volumes and housed in a new, fireproof building, with reading room and place for meetings. Following are the things which they consider essential for securing a medical library:

1. There should be a small committee of enthusiastic members who believe in a library, who are untiring and unselfish in their devotion to the work, who will not consider failure a possibility, and who will not be discouraged by the indifference or half-heartedness of others.
2. There should be a place for the library, which may be permanent, with room for expansion.
3. One or more persons should be present at certain hours to assist members in finding what they want in the mass of material accumulated.
4. Everything possible, old and new, should be secured, and nothing thrown away.
5. Without fail a complete set of the *Index Medicus* and "Index Catalogue of the Surgeon General's Office" should be secured. The current numbers and, as funds permit, back issues should be bought. An excellent working index is the *Guide to Current Medical Literature*, issued semi-annually by the American Medical Association.
6. Members should be encouraged to contribute books and journals by gift or loan, and should be urged everlastingly to do this.
7. All periodicals donated or purchased should be bound, that they may be of use for future reference. This should be done as the volumes are completed.
8. The Association of Medical Librarians should be joined, to secure the benefit of the library exchange.

The same bulletin announces the recent formation of the San Diego Medical Library Association, and their intention to develop in time a practical, well-organized medical library which shall be at the service of all whom it attracts, irrespective of membership.

* * *

At the Massachusetts General Hospital, Boston, an index to the reports from 1873 to date has just been completed. Its references form a continuation of Bowditch's history of the hospital.

* * *

The Treadwell Library added 289 volumes during the year 1915, giving a total number of 9,160 volumes. Their pamphlets total 7,689. They have registered an attendance of 2,687 readers. Total expenses for the year, $2,-351.05.

* * *

Don't forget the institution library session at the meetings of the National Conference of Charities and Corrections to be held in Indianapolis, May 10-16.

The new Flint-Goodrich Hospital at New Orleans, representing an expenditure of $50,000 and accommodating 50 patients, was dedicated March 4. The ceremonies were attended by a number of prominent persons, including Mayor Behrman; Dr. Oscar Dowling, state health officer; D. D. Moore, of the *Times-Picayune*; Dr. William I. Haven, of New York, secretary of the American Bible Society; Bishop Wilbur P. Thirkield; Dr. Charles M. Melden, president of the New Orleans University; and Dr. R. E. Jones, editor of the *Southwestern Christian Advocate*. The hospital is an outgrowth of the Sarah Goodrich Hospital formerly operated in connection with the Flint Medical College, and is the leading negro hospital in a territory containing a negro population of more than a million. A training school for nurses is maintained, and the hospital is the only one in New Orleans where negro physicians and surgeons may practice. The institution is in charge of Dr. R. T. Fuller, who, with Dr. Melden and Bishop Thirkield, has been very active in developing the institution to its present size and efficiency.

The selection of a site and the development of plans for the proposed Jeanes Hospital at Philadelphia will be pushed to an early conclusion, according to the Westchester (Pa.) *News*. The sum of $2,000,000 was bequeathed by the late Anna T. Jeanes for the erection and maintenance of a hospital, and the money became available two years ago, but a disagreement ensued between the Philadelphia Yearly Meeting of Friends, who were interested in the bequest, and the trustees of the Jeanes Hospital Corporation over the financial management. The differences have now been adjusted, and it is understood that the hospital will be built this year.

PREVENTION OF BLINDNESS
MATERNITY

Conducted by CAROLYN CONANT VAN BLARCOM, R. N.,
Secretary National Committee for the Prevention of Blindness; Chairman Committee on Prevention of Blindness and Midwives. National Organization for Public Health Nursing.

Please address items of news and inquiries regarding Prevention of Blindness—Maternity to the editor of this department, 130 East Twenty-second street, New York City.

The Eyesight of School Children

BY HENRY COPLEY GREENE,
Field Agent for Conservation of Eyesight, Massachusetts Commission for the Blind.

School children whose eyesight is very defective are so exceptional that educators, school physicians, and even school nurses sometimes forget how serious their plight may be. Exceptional as these children are, they present, especially to the school nurse, a problem requiring time and tact for its solution. In an average public school population of some 10,000 children, for example, about 3 percent, or 300 children, will probably be found whose eyes have never been examined by any expert and whose visual acuity is one-half normal or less. This statement[1] means that in a city of 150,000 inhabitants the half dozen nurses who should be at work among the 10,000 public school children will each be confronted with about fifty cases, every one of them in need of an expert examination, many of them with parents requiring repeated visits to explain this need, and still others requiring eyeglasses for which their families can pay either not at all or only by slow installments.

If there are only two school nurses in our city of 150,000, each will, of course, be face to face with about 150 such eye cases; and if, as unhappily may be true, the city boasts not a single school nurse, the plight of these children may be serious indeed. The chances are that, with the best will in the world, neither the school physician (if he exists) nor the hard-worked school teachers will find time to see that these children's needs are met.

One hardly realizes how crucial the situation of some of these children may be until one has met young men and women, past the school age, whose education either has amounted to nothing or has been won at too great a cost. Among such victims of public neglect is, for instance, a man with high myopia—extreme short sight—described by a social service head worker at the Massachusetts Charitable Eye and Ear Infirmary. This man, she says, "was sent to us one day, ragged, emaciated, almost helpless without his glasses, which had been broken a few days before. His record with the public and private charities of Boston and other cities was a very bad one—idleness, drink, immorality, neglect of his children. The hospital found a condition of high myopia, which had been corrected only after the man had passed his twenty-fifth year, when he had thoroughly learned the lesson of idleness, and the rest had followed easily. All his life he had been handicapped; in school, where his fellow pupils who had better vision left him far behind; later, when work was difficult to find and, for him, almost impossible to keep; and later still, after glasses had been found to help his vision, by the habit of idleness and its attendant evils, acquired through little fault of his own. There was no doubt about his very bad record, but the hospital finding left much doubt as to his individual responsibility."



Fig. 1. Girl with phlyctenular keratitis.

Nor is this instance isolated. The fact that over 16 percent of 1,000 girls committed to a state school for delinquents[2] have defective sight (vision half normal or less) suggests that their delinquency is due, in part, to the irregular schooling and undisciplined habits which so easily result from ocular defect. This does not mean that poor sight is the sole cause of delinquency. In many cases low mentality is clearly the cause, while in others delinquency has occasioned disease, which in turn has impaired the eyesight. With all allowance made, however, the fact that low vision is four or five times as prevalent among these delinquents as among average school children, together with their individual stories, make it plain that the moral dangers involved in poor eyesight should not lightly be forgotten.



Fig. 2. International test. With normal vision the direction of the break in the ring can be recognized at 5 meters.

Unless a child's sight is excessively poor, his intellectual progress is usually less endangered than his general health or even his eyesight. Though the average child with low vision tends to drop behind in school, many such children are so bright or persevering that they keep abreast of their normal fellow pupils, or even forge ahead. In cases of myopia this is especially dangerous, for in the process the children's eyes may grow more and more ab-

[1] Based on two years' study in six Massachusetts cities, where the vision of over 90,000 children had been tested by the teachers.

[2] Page 47 Eighth Annual Report Massachusetts Commission for the Blind.

normal—so abnormal, indeed, that in later life they may become practically blind. And even in cases of defects that are unlikely to increase, the ocular effort involved in ordinary school work may cause troublesome nervous symptoms, or even lower the general level of health.

A certain number of children, not fit candidates for any school for the blind, require special education to preserve general health, prevent nervous disorders, or conserve what eyesight they have. These children are relatively few, yet in Springfield, Mass., for example, a city of only about 90,000 inhabitants, a special "semi-sighted class" has recently been opened with a dozen pupils and a good sized waiting list; and similar classes are in full operation in Boston, New York, Cleveland, Cincinnati, and Toledo.

To provide such classes for children with low vision is beyond the average educator's or nurse's immediate reach.



Fig. 3. Semi-sighted class in one of the public schools of Springfield, Mass., established September, 1915, as a result of the investigation of the Commission for the Blind, with the cooperation of the Springfield schools and Perkins Institute.

Teachers in small places, however, can do much for such children by giving them individual care—by abolishing home lessons, emphasizing the oral and manual sides of their training, finding for them books in the coarsest type, having their lessons in badly printed books read aloud to them, writing out their arithmetic examples in coarse figures two or three inches high, doing, in short, everything that ingenuity can suggest to save these children from any arduous or sharply discriminating use of their eyes. This sounds like "a large order." That it can be done, however, I know from having seen just such sight-saving work carried on for a child with dim vision by a school principal in that half-isolated region, our Massachusetts Berkshire Hills.

Meantime, for the school nurse there is sight-saving work to do for other children with eye diseases or defects. The commonest serious eye disease, and one for which nurses should watch, even among their charges' younger brothers and sisters, is known as phlyctenular keratitis. A child with inflamed and watering eyes, who cannot stand the light, generally has this disease. The disease shows itself in one or more swellings or blisters, sometimes a mere pin point in size. These occur at the junction of the white and the "cornea," or colored portion, of the eye, or on the cornea itself. These "blisters" cause inflammation, which in turn causes pain, watering of the eyes, and dread of the light. Unless the trouble is skillfully treated, it is likely to recur, and to result in ulcers which may ultimately leave the eyes scarred and the sight dim; and if the school nurse is not very watchful, the damage may be done before the child has even entered school.

In certain parts of the country trachoma is a still more serious menace; and there are, of course, still other eye diseases which require the school nurse's attention. Of all these difficulties it is here enough to say that any abnormal appearance of the eye (except ordinary sties) should receive immediate expert care, and that this care should be followed up until results are definitely secured. For the rest the discovery and correction of errors of "refraction" require much time and labor.

In Massachusetts a preliminary eye examination is made each year by the school teachers. Elsewhere the children's eyes are examined either by school teachers or by the school physicians, or again by the school nurses. Whatever the system, the actual examination is too often perfunctory. Moreover, the test charts generally used make it impossible to examine children who do not know their letters. In practice this excludes the first grade. By the use of a chart provided with test symbols instead of test letters, serious visual defects in first-grade children can be discovered. A year ago I found one teacher who had herself made such a chart with measured symbols, and who had satisfactorily examined her first-grade pupils. Such a teacher is exceptional. Such charts, however, can be cheaply procured for use in the lower classes. It has even been suggested that their routine use for all pupils would have certain advantages—for example, preventing occasional too clever pupils from memorizing the letters. A possible test chart of this kind is the so-called international.

A child who cannot accurately read or describe such a chart at half the normal distance is probably in serious need of care. Even at the cost of much effort, therefore, it is essential to get children with apparently defective eyesight adequately examined after such a first examination. If glasses are prescribed, do not let the parents buy them "across the counter," but make sure that the prescription is properly filled. Only in this way can you make sure that the children get the glasses which may mean good health instead of bad and clear sight instead of defective.

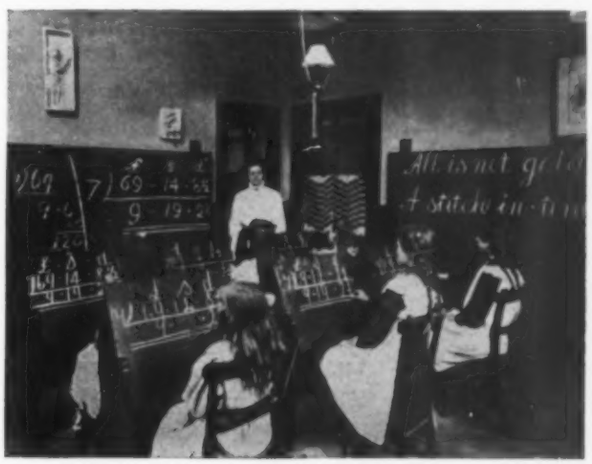


Fig. 4. Arithmetic lesson in the myope class in London. The teacher uses the long wall blackboard, while every child has its own blackboard as a part of the myope desk. Note the heavy, strong lines of the chalk writing and the bold, upright characters. The ordinary thin-lined, straggly writing of the lecture theater is not adapted to these classes. Blackboard writing is an art to be cultivated.

As already suggested, it is often only by personal explanation to parents, by persistence and by persuasion, that permission for the necessary examination can be se-

cured. What can be accomplished in this way, even by a single visitor, is shown by about three months of part-time "follow-up" work with the families of 99 children in Worcester, Mass. In two cases the parents positively refused advice, in two instances the child was found to be mentally defective, and in four cases glasses were found to be needless. For 71 children glasses were prescribed, which make their continuance in the regular classes unobjectionable; 22 were found to need special instruction in a class for children with defective sight.

In view of these results, achieved under difficulties, should not more regular provision be made for explaining to parents the needs of their handicapped children? In importance, such work is hardly outclassed by the work of the school physicians, whose assignment to every school is required by law in several states. School nurses, school visitors, etc., paid and unpaid, are already doing this necessary work in many cities; but their numbers are seldom sufficient. It it not, therefore, time to consider laws requiring of all cities the assignment of at least a minimum number of nurses or visitors to their public schools? One such nurse or visitor to every 1,500 or 2,000 pupils could nearly keep abreast of the average necessary work. With no less provision can the problem of disease and defect among school children be adequately met.

Sea View to Choose Director

The municipal civil service commission of the city of New York is about to hold a competitive examination for the position of director of Sea View Hospital and Farm Colony; salary to be $4,380 per year, with house and maintenance.

The commission is extremely anxious to secure as many well-qualified candidates as possible, and it is interesting to know of their thorough canvass of all eastern hospitals by letter and the following form:

"All candidates for the position are requested to submit applications on or before March 2 at the Municipal Building, room 1400. The subject and weights are: experience, 4; duties, 3; oral, 3; 70 percent required on each subject. Candidates will not be assembled for the written examination, but will be called for the oral. A qualifying physical examination will be given. Duties: general supervision of Sea View Hospital (tuberculosis) and of the adjoining Farm Colony for aged poor. Each institution, with a present census of about 1,000 inmates, is under the immediate care and management of a superintendent. The medical and hospital service at Sea View extends to the Farm Colony, while the work of the latter also covers both institutions. It will be the duty of the director to correlate the work of hospital and Farm Colony, to exercise general supervision over the working staff, to see that inmates receive proper care and attention, and that buildings and grounds are kept clean and in good condition.

"Requirements: candidates must have had at least two years' administrative experience in an approved institution, tending to qualify them for the position sought, or the equivalent. Candidates must be 21 years of age; salary includes house and maintenance for incumbent and family.

"Requests for application by mail must be accompanied by self-addressed envelope (9½x4¼ inches), bearing 4 cents in stamps. Applications returned by mail must be fully prepaid."

Miss Irene Murdoch, superintendent of the Citizens' General Hospital, New Kensington, Pa., recently tendered her resignation because of ill health. The board of directors, however, refused to accept the resignation and granted Miss Murdoch indefinite leave of absence instead. While Miss Murdoch is regaining her health, the hospital will be in charge of Miss Edith McNaughton, the assistant superintendent.

FOREIGN CORRESPONDENCE

In the Mediterranean War Area

Seldom can the medical service of any army have had a more difficult task to perform than had the Royal Army Medical Corps in the Dardanelles. At the end of April and during May the fighting was incessant, the total casualties numbering 38,536. Fighting continued through the summer, and in the period from July 18 to August 21 the killed, wounded, and missing amounted to 41,000. The wounded were placed on board the hospital ships as soon as possible, the ships in this instance being, technically, "casualty clearing stations" rather than "base hospitals," as would be the case under ordinary circumstances. As will be remembered, the fighting force was exposed to heavy shell fire throughout the operations, and the work of the hospital staff had to be carried on subject to the same risks. There were no roads, and the wounded who were unable to walk had to be carried from the firing line to the shore, exposed to shell the whole time.

The work of the hospital ship "Soudan" in the Dardanelles, has been described by Fleet Surgeon Trevor Collingwood, R. N. This vessel is a converted transport of 6,696 tons, and accommodates 202 bed cases, with an additional 100 in an emergency. At the end of April both military and naval forces were landed under heavy fire, and 429 wounded were received on board, 382 cases being admitted on one day. Again, in the latter part of May 411 cases were admitted during five days, nearly all of them injuries more or less serious. Perhaps the heaviest work was experienced by Dr. René Celles, in charge of the French hospital ship "Burdigala." This vessel was an accessory ship, without proper equipment or adequate medical staff. On the night of May 8 500 wounded were taken on board; all of them had to be dealt with by Doctor Celles singlehanded, without even a nurse to help him, and with very scanty supply of surgical instruments and dressings. In a war of unprecedented magnitude such occurrences must happen sometimes, however regrettable they may be. One cannot make omelets without sometimes breaking eggs.

The total number of killed and wounded during the July operations in this area amounted to 37,982, of whom 8,099 were killed. It was not possible to find a suitable site for a hospital on shore. A casualty station was established at Cape Helles, at the southern end of the Gallipoli peninsula; but this was so much exposed to shell fire that the wounded had to be brought out on barges to the hospital ships, from which they were eventually transferred to base hospitals at Lemnos, Alexandria, and Malta. This last-mentioned island is particularly well suited for the accommodation of sick and wounded, and has numerous and capacious hospitals available. Here and in Egypt are stationed a number of consulting physicians and surgeons. The wounded landing at Alexandria were either conveyed direct in motor ambulances to the various hospitals in that city or placed in specially arranged ambulance trains for



Fig. 1. Ball room in the Quirinal Palace, Rome.

conveyance to Cairo. The enormous number of men wounded during the Dardanelles operations heavily taxed both the administrative resources of the army medical service and Red Cross organization and the surgical staffs of the base hospitals. Within three weeks nearly 20,000 wounded were conveyed to Alexandria, several ships having 800 or 900 cases on board, with only three medical officers, a few orderlies, and no female nurses, to attend to the injuries, many of them of a very severe character. As time went on, of course matters straightened out, but, when the pressure was greatest, only the worst cases could be landed in Egypt, some 3,000 having to be taken on to Malta.

In Egypt large hospital accommodation exists at Alexandria, at Cairo, and at Suez. There are hospitals administered by the Red Cross organization at each of these places, and in addition the Red Cross has established convalescent homes in various parts of the country. From October to April the climate is, as Murray says, "genial and uniform, unsurpassed by that of any other country in the world." Malta also, though hot in the summer, is healthful, and for the greater part of the year has a delightful climate. Now that the so-called "Malta fever" (which has never been by any means confined to Malta, but has prevailed over the whole Mediterranean area) is practically extinct in the Malta Garrison (only three cases occurred in a strength of 6,600 in 1912), no better place could be wished for as a hospital base. The same may be said of Egypt during the greater part of the year; life can be lived out of doors, the recuperative processes of nature have free play, and surgical cases do well. Dust and mosquitoes have to be and can be dealt with effectually.

The Citadel Hospital at Cairo, the principal military hospital in Egypt, has been established in Mehemet Ali's palace within the fortress, on relatively high ground, and in a healthful situation. Cairo and its citadel are probably familiar to many of our readers, but not perhaps the interior of the old palace that for many years has been used as a hospital for British troops. The rooms are very spacious and airy, and from its relatively high situation the building gets the benefit of whatever movement of air takes place in Cairo, and there is generally an evening breeze from the desert. The hospital consists of a center and two wings, and has two floors, accommodating in all 500 patients. On the upper floor the center block is used for surgical cases, the right wing for medical cases, while in the left wing are wards for skin patients, mental cases, and the quarters of the nursing staff. The hospital chapel, also in this wing, is a richly decorated apartment, formerly the principal bathing chamber for the ladies of the harem. Before its occupation by the British in 1882 this building had been used as a storehouse and offices. After the battle of Tel el Kebir, the British having reached Cairo the next day, and it being considered necessary that a considerable force should be stationed in the city, the principal medical officer searched for a suitable building for a hospital, and fixed on this place, chiefly attracted probably by its high and relatively airy situation. It was in an indescribably filthy condition, but after free use of disinfectants, soap and water and fresh air, it was made habitable, and has remained the principal hospital for the army of occupation ever since. Captain L. B. Cane, R. A. M. C., describes it as "not only one of the finest, but probably the most interesting, of all the military hospitals in the Empire."

As regards Malta from a hospital point of view, an item of interest is afforded in the fact that at Valletta the military sick and wounded are partly accommodated in what is probably the longest room—i. e., the longest chamber—occupied as a living and sleeping apartment that exists anywhere in the world. This is the famous "Long Ward," measuring 503 feet in internal length, 35 feet in width, and 32½ feet in height. This room is within 10 feet of the entire length of Westminster Abbey, including Henry VII's Chapel.

Hospital accommodation for casualties from the Medi-



Fig. 2. Convalescents in the gardens of the Quirinal Palace, Rome.

terranean is extensively provided in Italy. In Rome itself the royal palace of the Quirinal (the usual residence of the king when in Rome) has been given up by his majesty for the treatment of the sick and wounded. Many of our readers are probably familiar with the Imperial City and its palaces. The accompanying views (Figs. 1, 2, 3) are of interest, as they show portions of the palace (now used as hospital wards), to which access is not allowed to travelers or the public under ordinary circumstances.

The conditions obtaining on board a hospital ship in the Mediterranean and the procedure followed have been well described by Dr. Hubert Chitty. He refers to a ship (not named) capable of carrying 350 cot cases and the same number of "walkers." The staff consists of a fleet surgeon, R. N., a consulting surgeon, and nine surgeons, all

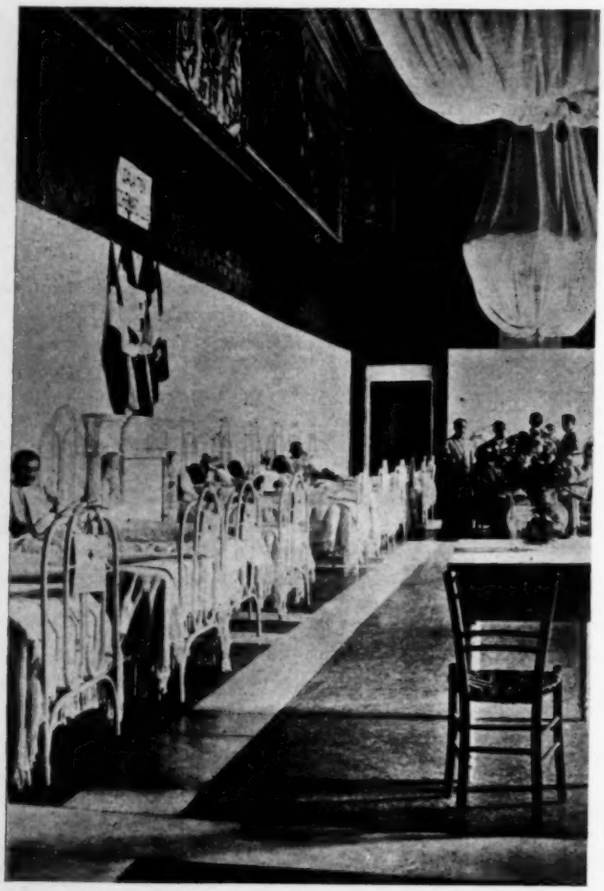


Fig. 3. Throne room in the Quirinal Palace, Rome.

drawn from the royal naval volunteer reserve, or holding temporary commissions, except one naval medical officer. There are four nursing sisters, and a sufficient number of attendants, either "sick bay ratings" of the royal navy or St. John ambulance men. The vessel lies anchored at a convenient spot, and the cases are brought off in barges towed by picket boats. When the party arrives alongside, the walking cases are first taken off; then the cot cases are placed, stretcher and all, in "cot carriers," and hoisted on board. The walking cases are fed, wounds dressed, and the slighter cases sent ashore, the more serious ones being kept on board. Those requiring immediate attention, such as operation or dressing under an anesthetic, are passed to the theater. It may be four or five days or more before the ship is filled up. On the other hand, every cot may be occupied in the course of twenty-four hours, besides some hundreds of walking cases being received, attended to surgically, fed and sent ashore again. It is evident that to cope with work on this scale there must be a perfect system of organization. It is gratifying to learn that the Turks respect hospitals and hospital ships, do not interfere with the rapid evacuation of the wounded, and allow the hospital ships to anchor close to the land unmolested. Mr. Tennant stated in the House of Commons in October that forty-nine hospital ships were regularly engaged on this service of the reception and transport of wounded.

Mr. John Morley, F. R. C. S., of Manchester (captain in the Territorial Royal Army Medical Corps), has given a very interesting account of the work of a field ambulance and its surgical activity in the Gallipoli peninsula. As a rule, a field ambulance is primarily used for the purpose of conveying wounded toward the base, rather than for carrying out treatment, except in the most urgent cases. But the experience of this war has taught us that, for badly soiled wounds, even twelve hours is too long to wait before performing operation if operation be necessary. One of the deep gullies on the Ægean shore, by excavation and leveling with picks and shovels, was in a few days so transformed as to be capable of accommodating forty stretcher cases, while a deep little recess off the main gallery was roofed over with tenting and wagon covers and made into an operating theater. The illustration shows the improvised theater and the conditions under which abdominal section was successfully performed.

The first unit of the new Central Hospital, erected at Stony Island avenue and East Fifty-seventh street, Chicago, jointly by the Illinois Central Railroad and its 60,000 employees, was formally opened March 4. Besides officials representing the railroad and its employees, prominent medical men of the city and from other places were present at the opening. An address on the relation of the medical profession to industrial development in America was delivered by Dr. Joseph C. Bloodgood, of Johns Hopkins University. The building is a handsome three-story fireproof structure, with accommodations for 125 patients. Although it is to be devoted primarily to the care of sick and injured employees of the Illinois Central road, the institution will receive general emergency cases when space permits. A special feature of the hospital is its large private rooms. There are twenty-one of these, and they are said to be twice as large as the ordinary hospital bed room. The wards also are roomy, and not more than four patients will be placed in any ward. There are a number of 2-bed wards. Three general operating rooms, one emergency operating room, a Zander room, and a hydrotherapeutic department have been fitted up. The hospital will not operate a training school. About twenty-five doctors and graduate nurses will comprise the regular staff. Dr. G. G. Dowdall will be surgeon-in-chief, and Miss Mabel Christie, superintendent. Dr. M. H. Swan, a graduate of the Johns Hopkins Medical School, will have charge of the laboratory, and Miss Helen Jones will supervise the operating room. In addition to the initial unit now completed and in use, the plans for the institution provide for the ultimate erection of a home for nurses and other employees, and also of a wing which will increase the capacity of the hospital to 300 beds.

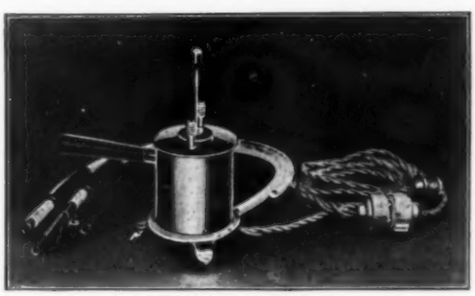
The first shovelful of earth in the excavation for a new home for the Presbyterian Hospital, San Juan, Porto Rico, was turned by the superintendent, Miss Jennie Ordway, on March 13. The building, which is to be a modern structure of reinforced concrete, will be financed by the woman's board of home missions of the Presbyterian Church in the United States, and is estimated to cost $150,000. The present hospital, consisting of frame buildings, was dedicated in 1904. Last year it treated 22,198 persons. It developed from a dispensary founded by Dr. Grace Atkins, now Mrs. Robert Holmes, who later appealed to the Presbyterian mission board to establish the hospital.

NEW INSTRUMENTS AND APPLIANCES

VINCENZ MUELLER, Technical Editor.
GEO. W. WALLERICH, Associate Editor.
Please address items of news and inquiries regarding New Instruments and Appliances to the editor of this department, 327 Southeast avenue, Oak Park, Illinois.

Electric Vapor Thermophore

The application of heat, when properly applied, is of course one of the oldest forms of treatment for the relief of congested conditions, though one which is rightly carried out in some form by nearly all hospitals and sanatoriums. The electrically heated vapor thermophore, as



Electric vapor thermophore.

illustrated, offers a convenient and safe appliance which should interest those who use warm vapor in their treatment cases. The apparatus replaces many of the more cumbersome types of inhalers and the even larger croup tent used after laryngeal operations. The design permits



Method of using the electric vapor thermophore.

the production of a very considerable amount of vapor—more, it is claimed, in proportion to the size of the apparatus than can be had from other forms of inhalers. The containing chamber is surrounded by an electric heating unit, arranged with a regulator so that any desired degree of heat may be obtained.

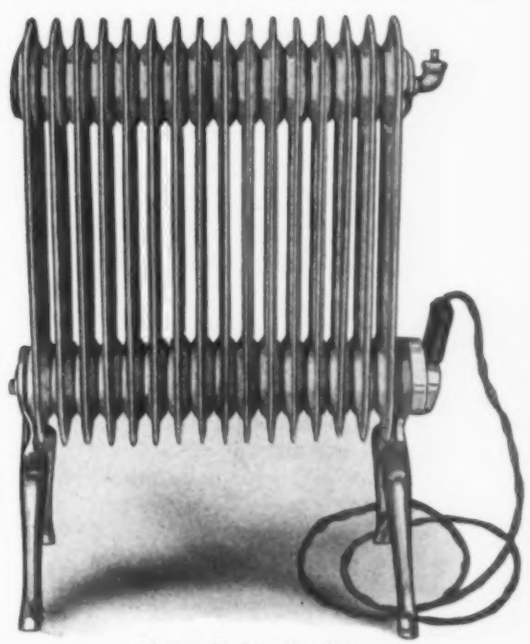
The steam chamber is made of aluminum and has no seams, thereby reducing the possibility of leakage to a minimum. Two rubber tubes are connected to the steam chamber through the cover, in which there is another opening, the size of which may be instantly controlled. This opening is for the admission of air and the escape of steam. In this manner the temperature of the air vapor mixture in the chamber may be regulated, being one of the important features in the design of the apparatus.

The whole device is contained in a nickel-plated metal jacket. The apparatus has now been in use a sufficient length of time to prove its value, and is extensively used at the Battle Creek Sanitarium with a great deal of success.

Electrically Heated Radiator

Very frequently during the early fall or late spring it is desirable to maintain a higher temperature in private rooms and wards, which, however, is both expensive and inconvenient when it comes to operating the steam plant of the hospital. In such cases the electric radiator as illustrated will be found of considerable value. At an expense of from 1 to 4 cents per hour, according to the rates charged for current, this electric radiator may be operated by simply connecting the attachment plug to a convenient socket. The radiator is portable, weighing but sixty-five pounds when full, and is made with polished feet, so that it can be pushed from one room to another without danger of marring the floors.

As there is no flame, as in the case of a portable gas stove, there can be no consumption of oxygen from the



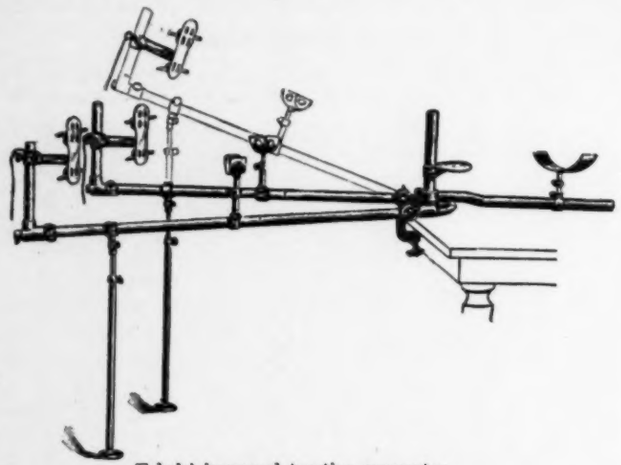
Electrically heated radiator.

air of the room, and, of course, no gases are given off. The heating unit is so wound that the production of steam is impossible, thereby making it a perfectly safe and simple apparatus to use. The radiator is built in two sizes—one size is 18 inches long, 6 inches wide, and 24 inches high, with a heating surface of 22½ square feet of radiation; the second size is 24 inches long, 6 inches wide, and 24 inches high, with a heating surface of 31½ square feet of radiation. The smaller size, it is stated by the manufacturer, the Rathbone Manufacturing Company, Grand Rapids, Mich., will heat a room 10 x 12 feet and 8-foot ceiling, or its equivalent, to 70 degrees in winter weather and the large size a proportionate area.

Improvement on the Echols Traction Apparatus

An earlier model of the apparatus illustrated below was devised by Dr. C. M. Echols, of Milwaukee, Wis., several years ago, for the purpose of making traction when applying plaster casts to the extremities in cases of fracture of the long bones, for applying bone plates of steel, ivory, etc., as well as for plaster dressings in the ambulatory treatment of fracture or hip disease.

Since then several orthopedic surgeons have invented other apparatus for the same purpose, and while some of them are very ingenious, they are rather complicated and



Echols' improved traction apparatus.

expensive. The cost of the Echols traction apparatus is such that it is within the reach of all who have considerable of this work to do, and with the new improvements recently added it should prove more serviceable than ever.

The improvements consist of a pair of telescoping leg rests which support the extension bars at any desired degree of elevation. In addition a clamp is applied by means of which the apparatus is fastened to the edge of the table instead of being laid on the top of the table or on the floor.

The extension bars, being jointed, allow the legs of the patient to be spread apart so that the operator may work freely between the lower extremities. The back rest which has been added can be moved on its supporting bar and placed in such a position that it will not be in the way when applying body casts or spinal jackets.

Surgeon's Seamless Arm Stocking

Under the above title Messrs. Sharp & Smith, of Chicago, have recently put on the market a seamless garment, which has at once become popular with the surgeons who have had an opportunity to give it a trial because it has such a wide field of usefulness in the doctor's office as well as the hospital operating room.

It is well known how difficult it is to apply a cotton or gauze bandage smoothly and evenly to serve as a protection to the skin under a plaster of paris cast. With this stocking, however, a smooth surface is secured, and proper apposition of the fractured bones is facilitated; the comfort of the patient is also made more certain because the proper shape of the garment prevents wrinkling, which occurs sometimes even when the well-known tubular material (stockinet) is used for this purpose.

The value of its use in the operating room will be at once apparent when the garment is drawn over the bare arm and the rubber glove drawn over the lower cuff. It affords the operator complete protection, and is much superior to the long-sleeved gown or detached sleeves, which have to be fastened with safety pins, etc.

For office gynecological work, in obstetric work or applying dressings in the homes of patients, it will be found equally valuable as a protective and a time saver. There are many other occasions on which this device can be used



Surgeon's seamless arm stocking.

to great advantage, such as holding dressings in place on the arm or leg, which, as a rule, cannot be held securely for any length of time without resorting to the use of adhesive strips, which are rather uncomfortable at times. Their value in emergency and field work will be appreciated, as they can always be kept on hand in a sterilized condition. Inasmuch as the first cost is inconsiderable, and as they can be resterilized and used many times over, they seem very desirable from the standpoint of economy.

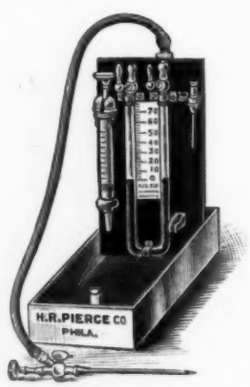
The stockings are made in three lengths—13 inches, 16 inches, and 20 inches long—and can be secured at surgical supply houses.

Mercury Manometer for Determining the Pressure of Cerebrospinal Fluid

DESIGNED BY DR. L. H. LANDON.

It is well recognized that the present methods of determining the pressure of the cerebrospinal fluid are too variable, inaccurate, and unscientific, and therefore the efforts of Dr. Landon to present to the profession a universal method and instrument by means of which reliable data and deductions may be obtained will be universally appreciated.

The Landon manometer and spinal needle seem to meet all requirements, and its simplicity, durability, and exact-



Mercury manometer.

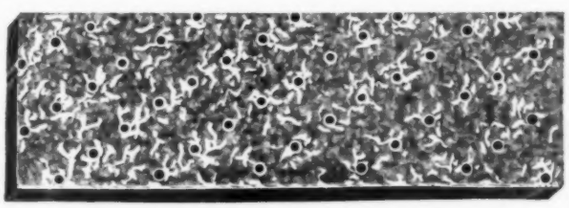
ness should commend it to the use of the medical and surgical professions generally. It consists of a U-shaped mercury manometer of standardized caliber, capable of registering 70 mm. of pressure on a corrected sliding scale. The needle is of platinum, and is connected with the manometer with a thick rubber tube by a three-way cock. This permits the repeated and controlled withdrawal of fluid in any desired amounts during the taking of observations, or prevents the escape of fluid where only

pressure is desired, as in cerebellar growths. The manometer and needle are carried in a metal case, with a small record syringe and needle for local anesthesia or for the injection of medicaments into the spinal theca. All connections are standard and universal. The case, when closed, can be easily carried in the pocket.

New Splint Material

Perfofelt is the name of a splint material which has recently been put on the market. This material is a chemically treated wool felt. The chemical treatment renders it rigid and board-like, and it is claimed that the rigidity is retained indefinitely. It becomes soft and pliable when immersed in hot water, but immediately begins to harden after it has been molded to the part, and the molded form is retained perfectly. The validity of this claim has been verified by the writer.

Perfofelt is made in two thicknesses—⅛ inch and 5/16 inch. The lighter material is suitable for hand, forearm, foot, and ankle dressings, while the heavier affords ample support for fractures and injuries to the long bones. The superiority claimed for this splint material over anything heretofore used in felt is its ventilation. It is perforated



Perfofelt, the new splint material.

to the extreme limit that will not weaken or diminish its rigidity and retaining power, which provides for the radiation of inflammatory heat, which is so essential to physiological rest and repair. Another advantage possessed by this splint material is that it may be remolded and readjusted to the varying changes of contour and size during the process of repair. The material is furnished in a sterile covering, and the makers claim that it can be kept sterile or resterilized by hot water. The x-rays penetrate the material perfectly, and therefore it is not necessary to remove the dressing when x-ray examination or skiagrams are to be made. The material can be procured from surgical supply houses, or from the National Perfofelt Company, Knoxville, Iowa.

The Carpenter Steel Works of Reading, Pa., has adopted a very thorough system of looking after its sick and injured employees. In addition to providing a central hospital, seven first-aid stations have been established at as many points through the plant. Each station has a complete first-aid equipment, consisting of a stretcher, with blankets, all kinds of bandages, and medicines needed as disinfectants and for minor scratches and wounds, and is in charge of a crew of from one to three Red Cross-trained men. By a system of reports, every case of accident or sickness is followed up. A lungmotor for asphyxiation cases is a part of the equipment of the hospital. The company physician spends a part of every day at the plant, and a graduate nurse is always on duty.

It is reported that the Gray's Harbor County Hospital at Hoquiam, Wash., which was erected three years ago, but not used, has recently been put into service. The building cost $50,000, but after it had been completed the county authorities concluded that the cost of maintaining it as a hospital would be more than was required to have the county's sick cared for in other institutions.

QUERIES AND ANSWERS

A Superintendent's Troubles

To the Editor of THE MODERN HOSPITAL:

I enclose a record of the work of this hospital for the year 1915, and I would like your opinion on it.

I am unable to economize any more and still give service, and my board seems to think a hospital can be run on less money. Two years and six months ago I came to this hospital and found it "down and out," sufficient pupil nurses were not to be had to enter the training school; system there was none; laboratory in hopeless condition. I have now plenty of applicants for training; in fact, I have been able to effect an affiliation with the state hospital, which will give a post-graduate course of nine months to their nurses.

The laboratory I have reorganized, and I have had for the past year a paid pathologist and a paid assistant (a graduate nurse). The laboratory is now paying the salaries of both chief and assistant from "pay" private room work and "outside work." I have been requested to form a class for doctors to receive tuition under our pathologist, and pay a sum to the hospital for using laboratory and equipment. Some days we do as many as twenty Wassermann's.

A new hydrotherapy department has been installed, with a graduate in charge who has had special training along that line. Treatments are given to house patients on a charge scale; "outside" patients are also treated at a special rate of charges. In time I expect to build up a paying proposition.

The diet kitchen is now in charge of a dietitian, who is also a graduate nurse; all pupil nurses serve three months under her supervision, and *all* cooking for private patients is done by them, including the formula feedings for the children's department.

I have personally looked into every department, and I utilize all waste material. In the kitchens all fats, skimmings from broths, etc., bacon rinds—in fact, anything that cannot be used for frying—are saved and I make soap from them. I make on an average 150 gallons per month. I have had a soap tank installed at a cost of $10, and I boil it with a steam "line." In the nurses' dining room all butter left on plates is saved and brought to boiling point, then cooled and put in cold storage for cooking purposes. I have sufficient for use in both kitchens, and I never have to buy any cooking butter.

All meals are well cooked and served hot, and I provide as much variety as possible in a town so far away from good markets.

Some of the figures for 1915 are as follows:

Cost of maintenance	$70,380.21
Cost of maintenance per patient	1.90
Total cost of food	24,797.18
Daily food cost per capita	.34
Daily average persons fed	201
Average number patients daily	100

SUPERINTENDENT.

Offhand, and without knowing anything about the personal equations in your hospital, we should be tempted to say that you are a good superintendent; you certainly realize the essentials of good hospital management, and you are setting yourself out in your letter in a way to develop the fact that you know what you are talking about. Your hint that you are growing discouraged and want to quit means that you are tired and need a rest; no one can give good service when he is in the mental condition that you are just now. You feel that your board does not realize all that you are doing; you feel that your board isn't sat-

isfied, and that they are asking more of you than they have a right to expect in the way of economies.

Offhand, too, we should say that $1.90 as a per capita cost, under the conditions that you outline, is a very reasonable figure, and very few hospitals are giving the service that you say you are giving for that money; very few hospitals are making any of their service units pay for themselves. If your pathological work is being done without expense because of the income from it, you are exceptionally fortunate or you are an exceptionally good manager, or you have a medical staff that is giving you exceptionally good support.

Perhaps it would be better not to ask your board to take your figures for granted, but there must be some fair men on the board, men who have had sufficient experience in business affairs to know that they are incapable of judging of technical matters without the necessary technical training; these men, we should think, would at least accept your suggestion that they look into what other hospitals are doing and thereby judge of what their institution is doing.

There are no hospitals that are easy to administer, and there are no hospitals in which there are no difficult and perplexing problems; you have solved one of the most difficult of them in straightening things out in your training school. There can be no more perplexing problem than this, and hence you can probably expect to come across no more serious troubles than you have been able to master cleverly in the past. If your trustees have confidence in you, and if they like you and treat you well, it seems to us that you owe it to yourself and to them and to the hospital to sit down and have a plain talk with them, unburden your mind to them, and you have our assurance that they will meet you more than half way and help you solve your problems and try to make it easier for you, and not more difficult.

Cost of Equipment

To the Editor of THE MODERN HOSPITAL:

We are preparing to build, and already some of the good people of our city have proposed to undertake the furnishing and equipment of various parts of the hospital, and we would like very much to have the idea of THE MODERN HOSPITAL as to figures of cost for furnishing—for instance, a sterilizing outfit, an operating room, the main kitchen. These are some of the units that have already attracted the attention of some of our people, and, if we could tell them just exactly what one of these units would cost to equip, we think we could get an occasional check that might otherwise escape. It is our intention to recognize such gifts by bronze plates on the door of the unit or in some other suitable place. Our new hospital will be about 100 beds. A SUPERINTENDENT.

We are delighted with your scheme for the equipment of your special service units. We could not well conceive a better plan to attract funds than by separating out the particular purpose for which you want a sum of money, and it is human nature that you may expect responses where you would probably not get them if the amounts were to be more or less lost in the maelstrom of a general endowment fund.

In the figures that we are about to give you we have been thinking of a 100-bed hospital in considering the sterilizing apparatus and the kitchen, which will do for the whole house and which will be quite adequate for your needs for a long time. The operating room stuff would be for one room, and you could multiply that by the number of rooms that you want to furnish. The private room furnishing can be done for $40 or $50, but it can be very nicely done for $100, and I am giving you the various items.

STERILIZERS

1 dressing sterilizer, 16x60 inches	$ 600.00
1 water sterilizer (35 gallons each, hot and cold)	375.00
2 instrument sterilizers, 22x12x19 inches	150.00
1 utensil sterilizer, 20x20x24 inches	132.50
	$1,257.50

There will be some discount off this, but not very much.

OPERATING ROOM FURNITURE FOR ONE ROOM

1 operating table	$175.00
1 wall stand	30.00
1 curved table	15.00
1 two-drum stand	20.00
1 immersion stand	7.50
2 stools at $5 each	10.00
1 footstool	5.00
1 irrigation standard	20.00
1 gooseneck reflector	9.00
2 instrument and dressing tables at $20 each	40.00
1 anesthetic table	10.00
1 double basin stand	6.00
	$347.50

This does not include any sinks or special plumbing, or lighting figures.

PRIVATE ROOM FURNITURE

1 dresser	$ 30.00
1 bed	30.00
1 nurse's couch	5.00
1 bedside table	6.00
1 rocker	9.00
1 chair	4.00
3 rugs, 3x6 feet, at $4 each	12.00
1 curled hair mattress	12.00
	$108.00

This does not include any nursing paraphernalia, such as head rests, pans, basins, commodes, etc.

EQUIPMENT FOR MAIN KITCHEN

1 range	$ 300.00
1 steam table	150.00
1 dish warmer	100.00
1 motor and main shaft	100.00
1 potato peeler	100.00
1 meat and vegetable grinder and chopper	125.00
1 ice cream freezer, 20 quarts	50.00
1 stock boiler, double-jacketed, 40 gallons	100.00
1 vegetable steamer, 3 compartments	150.00
1 pan rack, 10-foot, at $3 a foot	30.00
1 cook's table	40.00
1 bread slicer	20.00
	$1,265.00

Obviously there are a good many of these items that one can do without, and you will be the best judge of which ones, but we have given you a pretty complete list, so that you can take it up with anybody who would think well of the proposition to furnish your kitchen for you.

The Meaning of Words

WEST SIDE GENERAL HOSPITAL,
ST. PAUL, MINN.

To the Editor of THE MODERN HOSPITAL:

Will you please give me your opinion as to what items belong to the administrative expenses and what to the operating or running expenses in our bookkeeping. I am inclosing one of our balance sheets.

REV. G. DUEBENDORF, Treasurer.

We cannot see any reason for separating your administrative and operating expenses. If dry goods is an administrative expense, why are not bakery products or the laundry? If your hospital publication, "The Life Line," is an administrative expense, why isn't printing and advertising? In other words, we can see no essential difference between the two terms—administration and operation. Is not administration of the hospital the same as the running of the hospital, and is not the running of the hospital the operation of the hospital?

It seems to us that your bookkeeping system would be somewhat simplified if you were to divide your accounts merely into two accounts—income and expenditure. Then you can distribute your income into its various sources, as, for instance, rental of rooms, amounts paid for the use of ambulance, any special items in the hospital contributions—that is, donations of all sorts. The expenditure

side could be distributed into the various classes—for instance, insurance for one class, any rentals that you might be paying, your pay roll, your fuel, your raw food, your medical and surgical supplies. And then you might subdivide some of these for your own better information, as, for instance, the food account might be divided up into, say, meat, including fish and poultry; vegetables, fruits, etc.; and then, if you want to go on, you can subclassify, as, for instance, fruits into fresh, raw, canned, etc.

All these subdivisions are not absolutely necessary, but they will prove of very great service to you for purposes of comparison at the end of each month and at the end of the year.

OHIO HOSPITAL ASSOCIATION TO MEET

Second Meeting of the New Association to Be Held in Cincinnati in May—Ambitious Program Provided and Serious Problems to Be Discussed

The program for the Cincinnati meeting of the Ohio Hospital Association, May 24-26, has been practically agreed on and is published below. Unfortunately some of the details are yet in abeyance, but in a general way the program as announced will be carried out.

Two very important subjects will occupy a large part of the time of the convention—namely, the operation of the State Registration Law and the Workmen's Compensation Act.

In regard to the former, the Ohio State Medical Board has recently ruled that it will not recognize any training school in a hospital which does not average more than fifteen patients per day. This will affect many of the smaller hospitals in the state, especially private hospitals, and there will undoubtedly be a keen discussion.

Some of the special hospital people have also announced that they proposed to bring up the problem, under this head, of training schools for special hospitals, such as hospitals for the insane and children's and maternity institutions.

Ohio is very much alive and the Ohio Hospital Association is most active, and undoubtedly there is a disposition in many quarters to go to the extent of settling this question of nursing in special hospitals—in just what way remains to be seen.

The Workmen's Compensation Act of Ohio has not given universal satisfaction, especially in regard to the time limit in the hospitals for patients sent there under the act. It is complained by some hospitals that the state board provided for under the act does not permit long enough residence in the hospital. The matter was threshed out pretty exhaustively at the Cedar Point initial meeting, when the Ohio Hospital Association was organized last summer, but it will come up again this year. It was claimed last summer that many cases require longer than $200 would pay for, the maximum rate for the care of a case under the act; some of the hospital people cited cases of fractured spines incidental to work in the coal mines. Other hospital administrators claimed last summer that the act itself was ambiguous in some points, and that, therefore, hospitals were not all being treated exactly alike.

No doubt the Cincinnati meeting will bring in representation from a great majority of the hospitals of Ohio, whose boards of trustees and administrators are fully alive to the possibilities of the association and the helpfulness it can be to the hospitals if its hospitals are properly concentrated.

HOWELL WRIGHT, Secretary.

PROGRAM.

WEDNESDAY, MAY 24.

Morning.

11:30. Registration.

Afternoon.

1:30. Convention called to order by the president. Reading of the minutes of the previous convention. Address of welcome by Mayor George Puchta. Response by the president and president's address. Three fifteen-minute papers. *Special Section Meeting—Superintendents of Tuberculosis Hospitals.* 1, paper by tuberculosis hospital superintendent. 2, The Hospital and the Operation of the Workmen's Compensation Act, W. S. Hoy, M. D. Discussion—Wallace D. Yaple, chairman of the State Industrial Commission of Ohio. 3, The Community's Obligation for the Care of Its Indigent Sick and Injured, Fred S. Bunn, superintendent Youngstown City Hospital. Discussion—Rev. C. H. LeBlond, director of Catholic Charities, Cleveland. Reports of committees. Announcements.

Evening.

8:00. Paper, S. S. Goldwater, M. D., superintendent Mount Sinai Hospital, New York city. Paper, John B. Murphy, M. D., Chicago. Discussion.

THURSDAY, MAY 25.

Morning.

9:30. Round table discussions (subjects to be announced later).
12:00. Buffet luncheon at Cincinnati General Hospital.

Afternoon.

2:00. Automobile ride around the city, affording opportunity to visit other Cincinnati hospitals and places of interest.

Evening.

6:30. Banquet. Speakers: Geo. W. Crile, M. D., chief surgeon Lakeside Hospital, Cleveland; C. R. Holmes, M. D., chairman Cincinnati Hospital Commission; John A. Hornsby, M. D., editor THE MODERN HOSPITAL.

FRIDAY, MAY 26.

Morning.

9:30. Reports of committees. Election of officers. Symposium—The State Registration of Nurses Law, The Operation of the State Registration of Nurses Law from the Point of View of the Small Hospital, J. S. Cherrington, M. D. The Operation of the State Registration of Nurses Law from the Point of View of the Large Hospital, Miss Laura R. Logan, superintendent of nurses, Cincinnati General Hospital. Discussion—Miss Johnson, examiner of nurses for the State Medical Board. Discussion—Representative of state hospitals, representative of the State Graduate Nurses' Association, representative of special hospitals. Adjournment.

Note—The papers on this program are not to exceed fifteen minutes unless otherwise indicated, and all discussions are to be limited to five minutes. No papers will be read by title.

Reorganization of Hospitals Contemplated

Commissioner Kingsbury, of the Department of Charities of New York city, has under consideration, in a plan for the reorganization of city hospitals under his control, the substitution of a small salary medical staff, with a continuous service, for the present large medical staff with a rotating service.

According to a local newspaper, Dr. A. F. Young, the new superintendent of the Milwaukee Hospital for the Insane at Wauwatosa, Wis., has inaugurated a system compelling a rigid physical examination of all employees of the institution. Dr. Young is quoted as saying that, for the protection of patients, he feels that the same plan of physical examination being agitated for employees of hotels and restaurants should be in effect in hospitals.

The Hospital Saturday and Sunday Association, New York city, has changed its name to the United Hospital Fund of New York. Mr. Olyphant, its president, explains that, when the association started thirty-six years ago, its sole object was to promote the taking of a collection for hospitals in churches and synagogues in the city on the last Saturday and Sunday of the year—hence its name. Since then, however, the appeal has been widened, so that at present only one-fifth of the receipts are from religious bodies, while four-fifths are from individuals and firms which contribute through committees of active business men in about thirty trades and professions. Collections on Hospital Saturday and Sunday will continue, but it is felt that the new name, United Hospital Fund of New York, will be more intelligible to strangers, and more likely to enlist their support. The first year's collection was $26,455.07, that of last year $126,421.90, while the present year shown an increase of $6,885.61 above last year at this date, according to Charles Lanier, treasurer.

HINTS FOR HOSPITAL SUPERINTENDENTS

This column is maintained as a help and reminder to hospital workers about the little things in administration. It is urgently requested that everyone contribute his and her "hints." Each item added to our knowledge helps to fill the common storehouse from which all may draw supplies.

What Personal Effort Means

Successful personal efforts of hospital officials to interest the individual members of a district or community in contributing to the support of their local hospital service creates an atmosphere of wholesome, unselfish thought for others that makes each individual life a happier and better one, and the community a better place in which to live. When individuals feel no interest in or desire to help their suffering neighbors, life becomes less worth the living.

All Should Work

No hospital board can sit still and do nothing in the presence of a financial emergency and hope to retain its self-respect. It is the duty of every member to contribute his best thought and effort. All board members are not of equal capacity, but each may do something, and every little helps. Honest purpose and persistent effort have saved the day for more than one hospital. There is no room in hospital work for drones; each should work, or get off the board and thus make room for one who can and will work.

The Interchange of Experiences

A well-known hospital authority, now deceased, once said: "A hospital may possess an exceptionally able and economical superintendent, but no hospital will by any chance escape from the certainty that its methods and economies may be improved by comparison and interchange of experience with other hospitals." This statement was made several years ago, and it is just as true today as it was then. Many hospital officials are too self-contained; they imagine that they know just about all there is to be known regarding hospital management, and that they have nothing to gain or learn by seeking the experiences of others. The hospital field is a distinct loser in consequence of this.

Buy From Responsible Firms

In the buying of hospital supplies, especially the consumable supplies, the superintendent or steward should possess a much wider range of knowledge than is usually understood. The hospital buyer must of a necessity pass on a great variety of goods, which in the commercial trades are passed on by a number of different experts. Among the jobbing houses there is a separate expert on butter, beef, eggs, tea, coffee, cereals, flour, dried fruits, cotton goods, woolen goods, etc., but the hospital buyer must, to be a competent buyer, be familiar with all of these. To a degree, at least, this is usually not possible, and therefore the buyer must trust to the honor of those from whom he buys. The advisability of buying from responsible firms is, therefore, apparent.

Curtailing the Abuse of Hospital Privileges

The failure of a hospital to collect, from people able to pay, for services rendered is to be condemned, because it exerts a demoralizing influence on the recipients themselves, because it curtails to that extent the service which might otherwise be rendered to people in greater need, and because it tends to check benevolent gifts. Much may be accomplished in curtailing the abuse of hospital privileges by requiring all applicants for treatment at less than the regular rates to fill out a blank, giving full information as to residence, address, occupation, weekly income, monthly rent, number and ages of the members of the family, etc. The mere requirement of this information will deter many improper cases from asking for free treatment, and it will also enable an intelligent inspector to rapidly form a fairly just idea regarding the merits of each case. This plan, properly worked out and efficiently applied, will not fail to produce most gratifying results.

Regarding Hospital Support

Outside of its earnings, the support a hospital will receive from the general public will depend on the public's knowledge and understanding of what the hospital is, why it needs support, and how much support it needs. This understanding and knowledge must come from the hospital itself, and it must be conveyed to the public through a channel and in such a manner as will bear the impress of intelligence and trustworthiness. Undoubtedly the local newspapers are the most neglected channels for cultivating increased hospital support, and that they are not more generally used for this purpose is the fault of hospital officials themselves. In too many instances this channel is practically closed because of the tactless manner in which hospital superintendents treat the requests of newspapers for information for publication. The press goes far in forming public opinion, and a hospital official cannot spend a few minutes to better advantage than in aiding a reporter or editor to obtain that clear and sympathetic knowledge regarding hospitals which will not only give a higher value to his writings, but will enable him to the better present hospital matters to the public, for in so doing the hospital official will directly benefit hospital interests.

Notes

It is the duty of the hospital board to formulate and keep amended up to date definite rules for the government of each officer and employee, professional or otherwise. It is only in this way that all may work together, each clearly understanding his or her individual duty, and united in a purpose to advance the standards of the hospital they serve.

* * *

The question is asked: In asking financial support, and even in admitting their patients, do not hospitals tacitly guarantee to do everything possible to effect a cure? If, then, the medico-social clinic and the social service workers are positively needed to that end, is it not the hospital's plain duty to establish and properly maintain such a department just as much as it should its drug room, its nurses, or its x-ray room?

DEL T. SUTTON.